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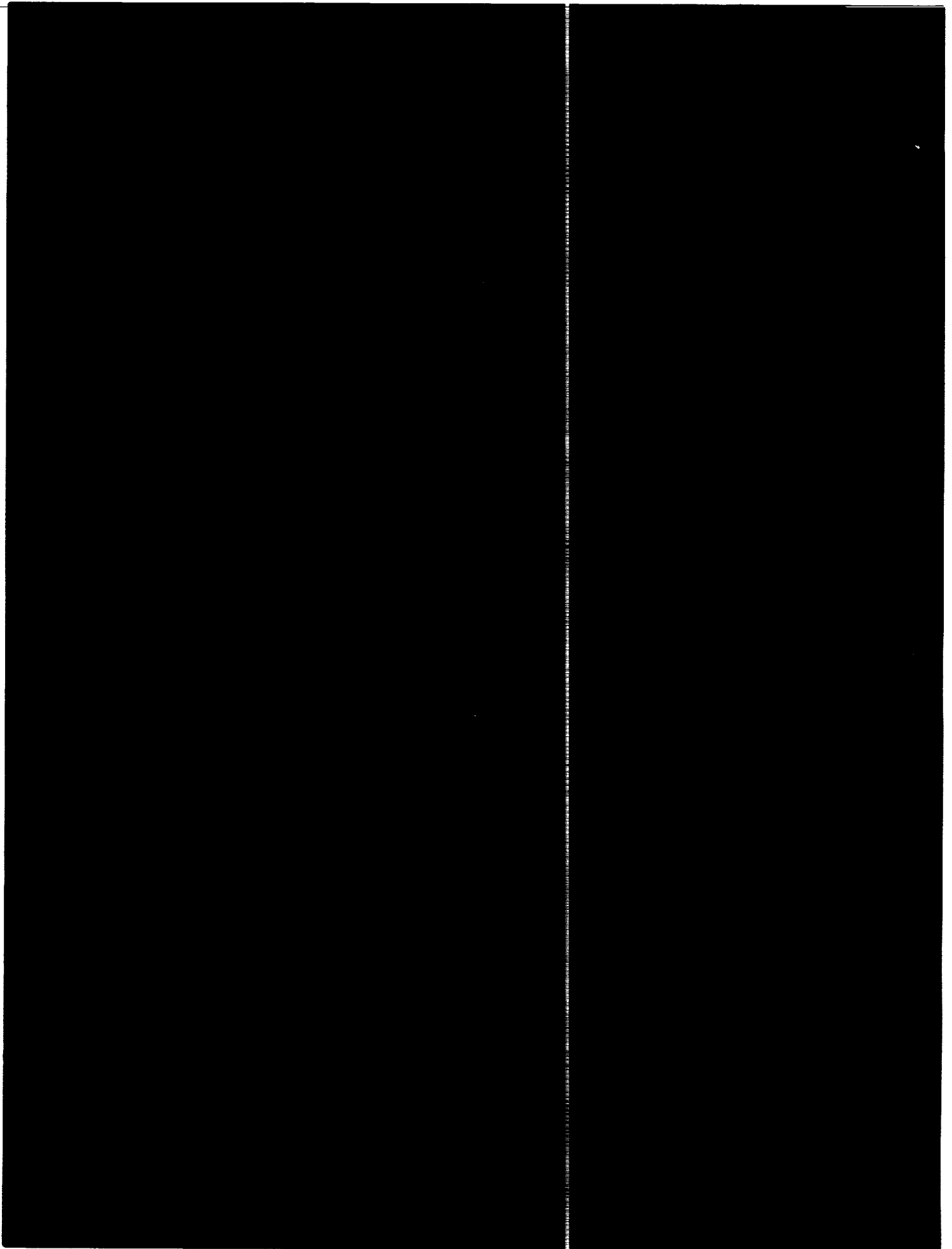
INTERNATIONAL GEOPHYSICAL YEAR BIBLIOGRAPHY OF LITERATURE  
IN THE RUSSIAN LANGUAGE FOR 1958

Compiled by R. F. Zatrutina and Z. M. Mikhaylova  
Chief editor, B. I. Silkin

Translated from compilation made under the auspices of the  
Mezhdunarodnyy Komitet po Provedeniyu Mezhdunarodnogo  
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[Interdepartmental Committee for the Conduct of the  
International Geophysical Year Under the  
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON

May 1960



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FOREWORD

The present bibliography, which contains the titles of 625 books and articles devoted to general and specialized questions of the International Geophysical Year (MGG), is a continuation of the publication International Geophysical Year - Bibliography of Literature in the Russian Language for 1954-1957.

Since in this latter publication the literature under the heading "Rockets and Satellites" was omitted, references on these subjects contained under this heading in the present bibliography include literature not only for 1958 but also for the entire period of preparation for the MGG and its conduct to the beginning of 1959.

In 1958 the number of scientific works devoted to the fulfillment of the program of the MGG rose considerably. Therefore, from the present edition have been excluded popular articles printed in local newspapers. However, in order to satisfy the interests not only of specialists but also of lecturers and popularizers and the large numbers of readers who are interested in the MGG, this edition contains not only specialized literature but also the most important popular scientific articles published in the central press.

As in the preceding edition, only those works are briefly annotated here whose titles do not give a complete idea of their contents. The arrangement of materials and rubrics follows basically the distribution corresponding to the fields of investigation in the MGG program.

As a result of the large amount of material devoted to the launching under the MGG program of the artificial Earth satellites and rockets, the corresponding section of the bibliography has been further sub-divided for the convenience of readers.

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\*Translated from compilation made under the auspices of the Mezhdunarodnyy Komitet po Provedeniyu Mezhdunarodnogo Geofizicheskogo Goda pri Prezidiume Akademii Nauk SSSR [Interdepartmental Committee for the Conduct of the International Geophysical Year Under the Presidium of the Academy of Sciences of the USSR], (Moscow), 1959.

The following sources were used in the compilation of the bibliography: "Printed Annals" [Knizhnaya letopis'] and "Annals of Journal Articles" for 1956-1958, reference journals of the All-Union Institute of Scientific and Technical Information, and also catalogs of the libraries of the Institute of Earth Physics im. O. Yu. Shmidt, the Institute of Applied Geophysics, Institute of Atmospheric Physics, the Physical Institute im. P. N. Lebedev, Institute of Oceanography of the Academy of Sciences of the USSR and of the library of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet.

## I. GENERAL QUESTIONS

### 1. Books and Articles, Including also Popular Literature

1. Bardin, I. P., "The Mightiest International Scientific Program," Izvestiya [News], 2 April 1958.

On the results of the first half of the MGG.

2. Belousov, V., "An Enormous Contribution to Science. Some Results of the International Geophysical Year," Sovetskiy Flot [Soviet Fleet], 1 July 1958.

3. Belousov, V., "A Fine Example of International Cooperation. Research under the Program of the International Geophysical Year Is To Be Continued." Pravda [Truth], 29 December 1958.

4. Bulanzhe, Yu. D., "The Achievements of Soviet Scientists," Gudok [The Whistle], 1 July 1958.

On various results of the MGG. Interview with Yu. D. Bulanzhe, Deputy Chairman of the Interdepartmental Committee for the Conduct of the MGG.

5. Bulanzhe, Yu. D., "The MGG is Moving Forward..." Vokrug sveta [Around the World], No. 6, 1958, pp. 1-2.

Interview with Yu. D. Bulanzhe, Deputy Chairman of the Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN [Academy of Sciences] of the USSR.

6. Bulanzhe, Yu. D., "The MGG Has Been Extended for a Year," Novoye Vremya [New Times], No. 33, 1958, pp. 12-13.

7. Bulanzhe, Yu. D., "The Development of Research Under the Program of the MGG," Vestnik [Herald] of AN USSR, No. 12, 1958, pp. 47-49.

8. Burykin, A., "Studying Our Planet, (On the MGG Program)", Nauka i Zhizn' [Science and Life], No. 7, 1958, p. 57.

9. Vovchenko, G. D., "On the MGG Program," ibid., No. 4, 1958, pp. 17-18 (illus.).

Scientific research by members of Moscow University im. M. V. Lomonosov.

10. "The Geophysical Year Must Be Extended! Interview with Prof. Yu. D. Bulanzhe," Novoye vremya [New Times], No. 23, 1958, p. 12.

11. Gol'denberg, G. S. and Skvortsova G. S., "On the Work Done by Scholars of MGU [Moscow State University] Under the MGG Program," Vestnik Moskovskogo Universiteta [Herald of Moscow University], Series on Mathematics, Mechanics, Astronomy, Physics and Chemistry, No. 5, 1958, pp. 213-216.

12. Davitaya, F., "The International Geophysical Year (MGG)." In Annual Supplement of the Great Soviet Encyclopedia, 1957, Moscow: State Publishing House of the BSE [Great Soviet Encyclopedia], 1957, pp. 542-544.

13. Delone, N., "On the Slopes of the High Tatars. (The MGG Is Moving Forward..)," Vokrug Sveta [Around the World], No. 6, 1958, p. 32 (illus.).

On the work of the high-mountain scientific laboratory (Czechoslovakia).

14. Demetresku, G., "Rumanian Scientists in the MGG," Nauka i Zhizn' [Science and Life], No. 4, 1958, p. 19 (illus.).

15. Zholt, Robert, "The Geophysicists of Hungary," ibid., No. 4, 1958, pp. 19-20.

16. Information Bulletin. Moscow: Publishing House of the AN USSR, No. 1, 1958, p. 1 (page drawing) (Academy of Sciences of the USSR. Committee on Geodesy and Geophysics).

17. Information Collection. Leningrad: Hydrometeorology Publishing House, No. 5, 1958, 74 pp. (illus.) (Main Administration of the Hydrometeorological Service under the USSR Council of Ministers. Committee for the MGG).

18. Kagarova, E. O., What to Read on the International Geophysical Year. Recommended Bibliography of Literature for the Assistance of the Reader and General Libraries. Tbilisi: Ministry of Culture of the Georgian SSR, 1957, 18 pp.

19. Karyakin, L. I., "The International Geophysical Year," Vestnik Svyazi [Communications Review], No. 7, 1957, pp. 20-22.

20. Koltunov, M. A., "The Higher Educational Institutions Are Active Participants in the International Geophysical Year," Vestnik Vysshey Shkoly [Review of Schools for Higher Education], No. 3, 1958, pp. 9-15.

21. Kuchеров, V., "The Contribution of Soviet Scientists to the Program of the International Geophysical Year," Propagandist [The Propagandist], No. 7, 1958, pp. 67-70.

22. Lebedev, T. S. and Sollogub, V. B., "Research in the Ukraine Under the Program of the International Geophysical Year." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN of UkrSSR. Information Bulletin. No. 1, 1958, pp. 3-7.

23. Lyakhov, B., "The International Geophysical Year (MGG). "In Annual Supplement of the Great Soviet Encyclopedia, 1958. Moscow: State Publishing House of the BSE, 1958, pp. 420-423 (illus.).

24. "The International Geodetic and Geophysical Society." AN, USSR. Committee on Geodesy and Geophysics. Information Bulletin. No. 1, 1958, pp. 5-12, (tables).

The tasks and principles of organization of the International Geodetic and Geophysical Society (MGGS). General assemblies, publications, scientific activities of the MGGS. Participation of the MGGS in the MGG.

25. R. F. Zarutina, comp., The International Geophysical Year. Moscow: Publishing House of the AN USSR, 1958, 42 pp.

26. The International Geophysical Year. Information Bulletin. Moscow: Publishing House of the AN USSR, 1958 (Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR).

No. 4, 122 pp. (illus.).

No. 5, 119 pp. (illus. with maps, 1 table).



27. The International Geophysical Year. Information Bulletin. Kiev: Publishing House of the AN UkrSSR, No. 1, 1958, 114 pp. (illus.). (Organizational Committee for the Conduct of the International Geophysical Year under the Presidium of the AN UkrSSR).

28. The International Geophysical Year (Minutes of a meeting devoted to the International Geophysical Year, held in the Central Lecture Bureau of the All-Union Society, 27 March 1958). Moscow, 1958, 20 pp. (All-Union Society for the Dissemination of Political and Scientific Knowledge. Materials to aid the lecturer).

29. "The International Geophysical Year Is To Be Continued," Vodnyy Transport [Water Transportation], 1 July 1958.

On the work of Soviet expeditions to the Arctic and Antarctic. Articles: A. Dralkin, "Science Conquers the Arctic"; Yu. Bulanzhe, "Cooperation of Scientists of the World"; G. Ponomarenko, "Covering Twelve Thousand Miles"; N. Sysoyev, "The Hero in the Pacific Ocean"; G. Bregman, "The Antarctic Reveals Its Secrets".

30. Nikolayev, A. D., "World Centers of Data for the International Geophysical Year (MTsD-MGG)." International Geophysical Year, Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 9-23.

31. "On Some Problems of Working Up Materials for the International Geophysical Year." Ibid., No. 5, 1958, pp. 15-22.

32. "Report on the Work of Center "B" from July 1957 to July 1958." Moscow, 1958, 7 pp. (with supplements) (USSR. World Center of Data "B" for the International Geophysical Year).

33. Report of the Soviet MGG Committee on the Fulfillment of the Program of the International Geophysical Year. Moscow, 1958, 47 pp. (with supplements) (International Geophysical Year, 1957-1958).

34. Plakhotnik, A., "The International Geophysical Year," Novyy Mir [New World], No. 8, 1958, pp. 214-224.

35. "On the Program of the International Geophysical Year (Research by Scientists of Georgia, Kirgiziya, and Tadzhikistan)," Vestnik [Herald] of AN USSR, No. 3, 1958, pp. 56-58.

Notes written by E. K. Kharadze, V. V. Kebuladze, A. V. Bukhnikashvili, K. O. Ortobayev, and P. B. Babadzhanyan.

36. Povzner, A. D., "On the Decisions of the Special Committee for the International Geophysical Year, Adopted 1954-1957." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin. No. 4, 1958, pp. 60-88.

37. "Draft of an Interdepartmental Plan for the Scientific Processing of MGG Data and Subjects for Scientific Research Work on the Basis of This Data." Ibid., No. 5, 1958, pp. 3-14.

38. Savel'yev, B. A., "The International Geophysical Year," Narodnoye Obrazovaniye [Popular Education], No. 2, 1958, pp. 91-95.

39. Troitskaya, V. A., "On the Program of the Geophysical Year," Gudok [The Whistle], 9 March 1958.

40. Troitskaya, V., "Man Questions Nature," Komsomol'skaya Pravda [Komsomol Truth], 2 April 1958.

On the results of the first half of the MGG.

41. Tushinskiy, G. K. and Ryabtseva, K. M., "The International Geophysical Year," Geografiya v. Shkole [Geography in the School], No. 1, 1958, pp. 1-14.

History of the project and research program.

42. Khrgian, A. Kh., "On Some Problems of Working Up Materials for the International Geophysical Year." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 15-22.

43. Yanovskiy, B. M., "The International Geophysical Year," Zvezda [The Star], No. 1, 1958, pp. 180-188.

## 2. Assemblies, Congresses, Conferences

44. Absyuk, G. A., "The Fourth Antarctic Conference." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 112-115.

F  
1  
2

45. Lednyev, V. A., "Questions of the MGG at the Forty-Fifth Session of the International Conference for Research on the Oceans." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Collection, No. 5, 1958, pp. 52-54 (1 page supplement).

46. "Conference on Microseisms" [Moscow, January 1958], Publishing House of the AN USSR. Series on Geophysics, No. 7, 1958, pp. 933-934.

47. Somov, M. M., "Conferences of the Special Committee on Antarctic Investigations under the International Council of Scientific Societies," Information Bulletin of the Soviet Antarctic Expedition, [Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii], No. 2, 1958, pp. 47-48. (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

48. Proceedings of the 12th USSR Astrometric Conference (Pulkovo, 7-9 December 1955). Leningrad: Main Astronomical Observatory at Pulkovo, 1957, 43 pp. (illus.).

49. Feynberg, E. L., "The Cosmic Ray Conference At Verona [Italy, June 1957]", Vestnik [Herald] of AN USSR, no. 1, 1958, pp. 86-90.

50. Engel'gardt, V., "An International Organization of Scientists," Novoye Vremya [New Times], No. 52, 1958, pp. 18-19.

On the VIIIth General Assembly of the International Council of Scientific Societies (Washington, December, 1958) at which were studied the recommendations of the Special (International) Committee for the MGG.

The Fourth Meeting of the Special (International)  
Committee for the MGG

(The IVth Assembly of the SK [Special Committee]  
for the MGG, Barcelona, September, 1956)

51. Belousov, V. V., "The Fourth Meeting of the Special Committee for the International Geophysical Year." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 2, 1957, pp. 74-86 (illus.).

The Fifth Meeting of the Special (International)  
Committee for the MGG

(The Vth Assembly of the SK MGG, Moscow,  
July-August, 1958)

52. Bardin, I. P. and Troitskaya, V. A., "Learning About the World and the Universe...", Ogonyek [The Light], No. 31, 1958, p. 20.

On the opening in Moscow of the Vth Assembly of the SK MGG.

53. Belousov, V., "The Assembly of Investigators of the Planet," Komsomolskaya Pravda [Komsomol Truth], 10 August 1958.

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1  
2

On the results of the work of the Vth Assembly of the SK MGG.

54. Belousov, V. V., "The Vth Assembly of the Special Committee for the International Geophysical Year," Vestnik [Herald] of AN USSR, No. 5, 1958, pp. 124-125.

55. Bulanzhe, Yu., "When the Scientists of the Whole World Meet," Literaturnaya Gazeta [Literary Gazette], 26 August 1958.

On the work of the Vth Assembly of the SK MGG.

56. Dralkin, A., "Continue the Cooperation," Vodnyy Transport [Water Transportation], 9 September 1958.

On the results of the work of the Vth Assembly of the SK MGG.

57. "The Vth Assembly of the MGG," Nauka i Zhizn' [Science and Life], No. 10, 1958, pp. 3-12 (illus.).

Articles: Yu. D. Bulanzhe; S. Chapman, "The Sun was Favorable to Us"; I. Novak, "A Thousand Observations of the Soviet Earth Satellite"; Kh. Odishou, "In the World's Icebox"; Zh. Kulon, "It Is Time to Extract the 'Gold from the Ore'"; Nguen Nkhu Kontem, "Take the Lead in Great Discoveries".

See also Nos. 86, 87 and 547.

## II. PROGRAMS, OBJECTIVES, METHODS AND RESULTS OF RESEARCH BY DISCIPLINES

58. Gavrilov, I. V., "Some Results of Investigation of Images of the Moon With the Aim of Determining Its Precise Coordinates." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 79-89 (illus.).

### 1. World Days

59. Pushkov, N. V., "A Regional Conference on Questions of Organization of Reports on Special World Intervals for Observations." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 108-111.

See also No. 491.

### 2. Meteorology

60. Baykova, L. N., "Some Characteristics of the Aerological Observations in the Far East." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG, Information Collection, No. 5, 1958, pp. 68-69.

61. Bezverkhniy, Sh. A. and Broymtman, P. M., "First Results of Ozone-Measurement Observations During the MGG," Vestnik [Herald] of AN Kazakh SSR, No. 8, 1958, pp. 27-31.

62. Britayev, A. S., Iozenas, V. A., and Kuznetsov, A. P., "On the Question of the Relations Between the Total Ozone Content and Meteorological Conditions," Meteorologiya i Gidrologiya [Meteorology and Hydrology], No. 10, 1958, pp. 24-29 (illus.).

63. "In the Pyrennes Mountains (The MGG Is Moving Forward.)," Vokrug Sveta [Around the World], No. 6, 1948, p. 24.

On an automatic meteorological station (Bulgaria).

64. Vasil'yev, V. M. and Shumeyko, V. P., "Hydrometeorological Observations Carried Out by the Administration of the Hydrometeorological Service of the Ukrainian SSR." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Bulletin, No. 5, 1958, pp. 59-60.

65. Vershinin, I. V., "An Experiment in the Use of Service Installations at the Kirov Aerohydrometeorological Station of the Upper Volga Administration of the Hydrometeorological Service." In Information Letter No. 6 of the Aviation-Aerological Administration of the Main Administration of the Hydrometeorological Service. Moscow: Hydrometeorological Publishing House, 1958, pp. 45-48.

On observations of wind data by high-speed planes at high altitudes.

66. Volynets, L. M. and Muchnik, V. M., "On the Experience of the Observation Point for Atmospheric Electricity." In ibid., pp. 39-40.

On the work of the Kiev Agrometeorological Station on Bagrinova Mt.

67. Grishin, N. I., "Observations of Silvery Clouds," Priroda [Nature], No. 1, 1958, pp. 55-57 (1 page illus.).

68. Grishin, N. I., "Some Results of Observations of Silvery Clouds in 1957." International Geophysical Year. Interdepartmental Committee for the Conduct of MGG under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 47-53 (illus., table).

69. Grishin, N. I., "Silvery Clouds in 1957," Astronomical Calendar All-Union Astronomic-Geological Observatory. Annual volume, 1959. Variable section. Moscow, 1958, Issue 62, pp. 214-320 (illus., 1 map).

70. Gushchin, G. P., "Investigation of Atmospheric Ozone." International Geophysical Year. Interdepartmental Committee for the Conduct of MGG under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 37-39 (illus.).

71. "Supplement to 'Instructions for Observations of Silvery Clouds,' Published in Information Collection of the Committee of the Main Administration of the Hydrometeorological Service for the MGG, No. 2, 1957." Main Administration of Hydrometeorological Service. Committee for the Conduct of the MGG. Information Bulletin, No. 5, 1958, pp. 73-74.

72. Yefimov, P. L., "Methodological Work and Observations Carried Out by the Central Aerological Observatory in Connection with the MGG." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Collection, No. 5, 1958, pp. 64-67 (illus.).

73. "Air Currents Above the Clouds," Vokrug Sveta [Around the World], No. 7, 1958, p. 32.

On research on jet streams in the atmosphere.

74. Imyanitov, I. M., "Investigations of the Electric Field in the Atmosphere." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Bulletin, No. 5, 1958, pp. 12-25 (illus.).

75. Kel'berg, V. P., "The Participation of the Alma-Ata Hydrometeorological Observatory in Observations Under the Program of the MGG." Ibid., No. 5, 1958, p. 63.

76. Porchkhidze, S. A. and Yefimov, P. L., "On Aerological Observations Made by Stations Under Schedule TAE-3-MGG." Ibid., No. 5, 1958, pp. 70-72.

77. Prihot'ko, G. F., Goysa, N. I., and Prokh, L. Z., "The Results of Meteorological and Actinometric Observations on Bagrinova Mt. (Kiev) for the Second Half of 1957." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958. pp. 104-114 (illus.).

78. Reshetov, V. D., "On the Radiation Re-heating of a Comb Radio Sounding Balloon and its Effect on the Results of Soundings in the Atmosphere," Trudy [Transactions] of the Central Aerological Observatory, Issue 24, 1958, pp. 59-71 (tables).

79. Tarasov, Yu. A., and Gintovt, F. Ya., "Results of the Work of the Aerological Station "Kaliningrad" of the Administration of the Hydrometeorological Service of the Lithuanian SSR in the Period of the MGG." In Information Letter No. 6 of the Aviation-Aerological Administration of the Main Administration of the Hydrometeorological Service. Moscow, 1958, pp. 21-23.

80. Urvantsev, I. V. and Korsakov, V. P., "Shipboard Hydrometeorological Observations in the Black Sea." Main Administration of the Hydrometeorological Service. Committee for the Conduct of MGG, Information Collection, No. 5, 1958, pp. 61-62.

81. Sharonov, V. V., "Observations of Silvery Clouds at Hydrometeorological Stations." Ibid., No. 5, 1958, pp. 34-37.

See also Nos. 499, 518, 524, 525, 549-551, 572, 577, 578 and 614.

## 3. Geomagnetism and Earth Currents

82. Bondarenko, A. P., "On the Nature of Pulsations of Earth Currents." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 97-103 (illus.).

83. Dubrovskiy, V. G., "A Method of High-Speed Recording of Earth Currents With the Use of Capacitive Coupling of Electrodes and a Galvanometer." Izvestiya [News] of AN Turkmen SSR, No. 1, 1958, pp. 3-10 (illus. and tables).

A study of short-pulse geomagnetic and geo-electric variations.

84. Ivanov, M., "The Voyage of the Dawn," Sovetskiy Flot [Soviet Fleet], 16-20 December 1958

On the voyage in the Atlantic and Indian Oceans of the motor sailing schooner of the Institute of Terrestrial Magnetism, the Ionosphere, and the Propagation of Radio-waves.

85. Kalinin, Yu. D., "Soviet Research on Geomagnetism," Priroda [Nature], No. 8, 1958, pp. 50-55 (illus., 2 maps).

86. Taychinov, R., "The Symposium on Geomagnetic and Ionospheric Disturbances at the Vth Assembly of the Special Committee for the International Geophysical Year [Moscow -- July-August 1958]," Izvestiya [News] of the AN USSR. Series on Geophysics, No. 12, 1958, pp. 1529-1530.

87. Troitskaya, V. A., "Conference on Rapid Variations of the Magnetic Field and the Field of Earth Currents." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 98-104 (illus.).

88. Troitskaya, V. A., "The First Results," Nauka i Zhizn' [Science and Life], No. 5, 1958, pp. 26-28 (illus.).

On investigations of the electromagnetic field of the Earth.

See also No. 109.



## 4. Aurora and Night Glow

89. Bol'shakova, L. G., Georgiyevskiy, Yu. N., Otto, A. N., and Rodionov, S. F., "On the Electrophotometric Investigation of the Lighting of the Night Sky." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 58-59 (illus.).

90. Megrelishvili, T. G. and Fishkova, L. M., "On the Investigation of the Lighting of the Upper Atmosphere. Ibid., No. 5, 1958, pp. 43-44 (illus.).

91. "Unusual Polar Auroras in 1957," Priroda [Nature], No. 4, 1948, pp. 81-83.

92. Pyaskovskaya-Fesenkova, E. V., "On Some Optical Properties of the Atmosphere of the Liviyskiy Desert." Doklady [Reports], of AN USSR. Vol. 123, No. 2, 1958, pp. 269-271 (illus.).

Some results of observations by the Soviet expedition to Egypt.

93. Pyaskovskaya-Fesenkova, E. V., "On the Scattering and Polarization of Light in the Atmosphere Under the Conditions of the Liviyskiy Desert." Ibid., Vol. 123, No. 6, 1958, pp. 1006-1009 (illus.).

94. Fesenzov, V. G., "Investigations of Zodiacal Light. (Preliminary Results of the Observations of the Soviet expedition to Egypt)," Vestnik [Herald] of AN USSR, No. 6, 1958, pp. 89-91.

95. Fesenzov, V. G., "The Expedition of the AN USSR to the Egyptian Province of the United Arab Republic for the Observation of Zodiacal Light." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 82-85.

## 5. The Ionosphere

96. Ben'kova, N. P., The International Geophysical Year and Research in the Upper Layers of the Atmosphere. Moscow: State Publishing House of Literature on Communications and Radio Problems, 1958, 48 pp. (illus. and maps) (Ministry of Communications of the USSR. Technical Administration. Readings on Communications Technique) [Biblio. of twelve titles].

97. Megrelishvili, T. G., and Fishkova, L. M., "On Research on the Upper Atmosphere." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 43-44 (illus.).

98. Mirkotan, S. F., and Drachyov, L. A., "Investigations of Large-Scale Heterogeneities in the Ionosphere by the Phase Method." Ibid., No. 4, 1958, pp. 56-57.

99. Tolstov, V. V. and Bondar', B. G., "Measurement of the Speed of Drift of Heterogeneities of Ionization (Winds) in Region F of the Ionosphere." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 43-50 (illus.).

See also Nos. 86 and 109.

## 6. Meteors

100. Dudnik, B. S., Kashcheyev, B. L., Lagutin, M. F., and Lysenko, I. A., "Measure of the Speed of Meteors by the Diffraction Method." Ibid., No. 1, 1958, pp. 51-62 (illus.).

101. Il'yasov, U. "A Study of Telescopic Meteors In the Period of Preparation for the International Geophysical Year." Uchebnye zapiski [Studies] of the Tashauzskiy Pedagogical Institute, Issue I, 1957, pp. 71-90 (illus.).

102. Kashcheyev, B. L., Dudnik, B. S., Lagutin, M. F., Lysenko, I. A., and Tolstov, V. V., "Radar Observations of Meteoric Activity." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 38-42 (illus.).

103. Fedynskiy, V. V., "Observation of Meteors During the International Geophysical Year (MGG) 1957-1958," Bulletin of the Commission on Comets and Meteors of the Astronomical Council of AN USSR. Stalinabad, No. 2, 1958, pp. 3-9 (illus.) (AN Tadzhik SSR. Astronomical Council of AN USSR.).

104. Tsesevich, V. P., "The Astronomical Observatory on the Dniester," Priroda [Nature], No. 10, 1958, pp. 86-87 (illus.).

On observations of meteors at the astrophysical observatory at Mayakakh (Odessa Oblast).

## 7. Solar Activity

105. Aleksandrova, E., "Watch the Flash! (The MGG Is Moving Forward..)." Vokrug Sveta, [Around the World], No. 8, 1958, p. 7 (illus.).

On solar observations at the Crimean Astrophysical Observatory.

106. Vyazanitsyn, V. P., "Solar Data," Nauka i Zhizn' [Science and Life], No. 6, 1958, pp. 14-15 (illus.).

Solar observations at the Pulkovo Observatory.

107. Gurtovenko, E. A., "The AFR-2 Telescope for Non-Eclipse Observations of the Chromosphere." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 69-78 (illus.).

108. Klyakotka, M. A., "A Method of Direct Determination of the Heliographic Coordinates of Sections of the Solar Surface from Spectro-helioscopic and Spectrographic Observations." Solar Data. Bulletin No. 6, 1947, pp. 123-126 (AN USSR, Main Astronomical Observatory and Commission for the Investigation of the Sun under the Astronomical Council).

109. Lyakova, L. N., "Magnetic Ionospheric Storms." Priroda [Nature], No. 6, 1958, pp. 89-91 (illus.).

On comparisons of changes in solar activity with geophysical phenomena.

110. Shvestka, Z., "At Ondrzheyov (Institute of Astronomy of the Czechoslovak Academy of Sciences)." Nauka i Zhizn' [Science and Life], No. 8, 1958, pp. 37-38 (illus.).

On solar observations.

111. Eygenson, M. S., "The Contemporary Phase of Solar Activity, the Probable Future Long-Term Course, and the Geophysical Consequences." International Geophysical Year. Organizational Committee for the Conduct of the MGG under the Presidium of the AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 90-96.

See also No. 492.

## 8. Cosmic Rays

112. Variations in Intensity of Cosmic Rays. Collection of Articles.  
 Chief Editor Yu. G. Shafer. Moscow: Publishing House of AN USSR, 1958.  
 172 pp. (illus., maps) (AN USSR. Transactions of the Yakutsk Branch.  
Series on Physics, Issue 2).

Contents: Shafer, Yu. G., "Continuous Recording of Variations in the Intensity of Cosmic Rays by an Ionization Chamber with Automatic Controls," pp. 7-22; Shafer, Yu. G., "Future Improvement of the Automatic Cosmic Ray Station," pp. 23-33; Kuz'min, A. I., Skripin, G. V., and Yarygin, A. V., "Equipment for the Study of Energy Characteristics of Variations of Cosmic Rays," pp. 34-35; Kuz'min, A. I. and Yarygin, A. V., "Apparatus for Measurements Under the Earth's Surface of Variations in the Intensity of Cosmic Rays," pp. 36-46; Belomestnykh, V. A. and Shafer, Yu. G., "Variations in the Intensity of Cosmic Rays in the Stratosphere and Methods for their Recording and Investigation," pp. 47-56; Dorman, L. I., "On the Theory of the Meteorological Effects of the Soft and General Ionizing Components of Cosmic Rays," pp. 59-67; Dorman, L. I., "On the Theory of the Temperature Effect of the Neutron Component of Cosmic Rays," pp. 68-72; Sokolov, V. D., "Methods of Introduction of Temperature Corrections as a Result of Measurements of the Intensity of the Hard Component of Cosmic Rays According to Data on the Temperature Profile of the Atmosphere to an Altitude of 5-6 Kilometers," pp. 78-80; Tyanutova, G. V., "Preliminary Results of a Comparison of Data on the Measurement of Variations in the Global Intensity of the Hard Component of Cosmic Rays by Instruments ASK-1 and S-2," pp. 81-84; Koval'skaya, A. I., "On the Question of the Seasonal Change in the Barometric Coefficient of the Hard Component of Cosmic Rays," pp. 85-87; Koval'skaya, A. I., Krasil'nikov, D. D., and Nikol'skiy, S. I., "Preliminary Results of a Determination of the Barometric and Thermal Effects of Extensive Atmospheric Rains Near Sea-level," pp. 88-92; Glokova, E. S., Kammer, N. S., and Mishina, N. A., "Cyclical and Seasonal Variations in the Intensity of Cosmic Rays," pp. 95-106; Kuz'min, A. I. and Skripin, G. V., "The Dependence of the Daily Effect of Intensity of Cosmic Rays on Geomagnetic and Solar Activity," pp. 107-117; Fuks, L. A., and Shvartsman, B. F., "The Temperature Effect in Seasonal and Daily Variations of the Hard Component of Cosmic Rays According to Data from the "Cape Shmidt" Station," pp. 118-122; Sokolov, V. D., "On the Nature of the 27-Day Variations in the Intensity of Cosmic Rays," pp. 123-128; Dorman, L. E. and Freydmann, G. I., "The Burst of Intensive Cosmic Rays on 23 February 1956 and Its Explanation," pp. 129-169.

113. Sokolov, V. D. and Skripin, G. V., "In the Yakutsk Laboratory of Cosmic Rays," International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 40-42.

114. Shafer, Yu. G., "The Study of Cosmic Rays During the Period of the International Geophysical Year," Izvestiya [News] of the Siberian Dept. of AN USSR, No. 8, 1958, pp. 3-17 (illus.).

See also No. 493.

#### 9. Longitudes and Latitudes. Time Service

115. Belotserkovskiy, D. Yu., "The International Geophysical Year and the Measurement of Time," Izmeritel'naya Tekhnika [Measuring Technique], No. 2, 1958, pp. 37-38.

116. Teleki, G., "Rapid Determination of Corrections in the Declinations of Talcott Pairs With Small Measurements of the Latitude Schedule," Astronomicheskii Zhurnal [Journal of Astronomy], Vol. 35, Issue 6, 1958, pp. 917-924.

On a new schedule of observations for the determination of latitude.

117. Filippov, A. E., "On One Possible Cause of Systematic Errors in the Determination of Latitude," Trudy [Transactions] of the Poltava Gravimetric Observatory, Kiev, Vol. 7, 1958, pp. 111-118.

118. Shcheglov, V. P., "The Kitabskaya International Latitude Station," Priroda [Nature], No. 11, 1958, pp. 46-48 (illus.).

119. Yakovlev, V. D., "The Conference of Countries of the East-European Region on the Problems of the Determination of Time, Longitudes, and Latitudes." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG. Information Bulletin, No. 4, 1958, pp. 105-107 (illus.).

#### 10. Glaciology

120. Alyeev, B. G., "Glaciological Work on the Fedchenko Glacier," Vestnik [Herald], of AN USSR, No. 10, 1958, p. 57.

121. Akhumbayev, I. K., "The Participation of the Academy of Sciences of the Kirghiz SSR in the Work of the International Geophysical Year." In Works of the Tyan'-Shan' Physico-Geographical Station of the AN Kirghiz SSR. Glaciology I. Frunze, 1958, pp. 5-8.

122. Borovinskiy, B. A., "Experience in the Use of Geophysical Methods in the Determination of the Structure of the Tuyuksu Glacier," Vestnik [Herald], of AN Kazakh SSR, No. 5, 1958, pp. 40-44 (Biblio. of 5 titles).

123. Rubinskiy, G. P., and Kovalyev, P. V., "On the Work of the Caucasus Expedition." Main Administration of Hydrometeorological Service. Committee for the Conduct of the MGG. Information Bulletin, No. 5, 1958, pp. 55-58 (illus.).

F  
1  
2

124. Zabiroy, R. D., "The Present State of the Glaciers of Central Asia." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 91-94.

125. The Study of the Mechanical and Physical Properties of Ice. A Handbook. Comp., by B. A. Savel'yev. Moscow: Publishing House of AN USSR, 1957, 64 pp. (illus.) (International Geophysical Year, 1957-1958).

126. Information Collection on the Works of the Geographical Faculties of Moscow State University on the International Geophysical Year. Chief editor, G. K. Tushinskiy. Moscow, 1958, No. 1, 298 pp. (illus., 1 map) (International Geophysical Year, 1957-1958).

Contents: G. K. Tushinskiy, "Glaciological Work on the El'brus," pp. 3-28; E. M. Shcherbakova, "Trace of Recent Glaciation in the El'brus Area," pp. 29-101; K. M. Ryabtseva, "Observations of Snow Flakes and Freezing Processes on the Southern Slope of El'brus," pp. 102-110; A. V. Bryukhanov, I. R. Zaitov, and I. A. Lappo, "On the Content and Legends of Large-Scale Maps of Glaciers," pp. 111-123; E. S. Troshkina, "Preliminary Data on the Use of the Spore-Dust Method On the Glaciers of the El'brus," pp. 124-128; M. Ya. Plam, "Distance Apparatus and Methods Used in the Study of the Temperature System of the Glacial Strata of the El'brus," pp. 129-131; K. M. Gromov, "Preliminary Information on the Work of the Khibiny Station for the International Geophysical Year in 1957," pp. 133-137; V. P. Puzanov, "Climatic Conditions for the Melting of Snow and Ice," pp. 138-157; K. M. Gromov, "On the Study of the Moisture Content of Soils and Earths," pp. 158-185; V. V. Kryuchkov,

"On the Hydrothermal System of the Earths of the Khibiny Mountain Range," pp. 186-205; V. F. Perov, "The First Glacier in the Khibinies," pp. 206-207; B. S. Chuchkalov, "Preliminary Information on the Work of the Pamir Expedition for the International Geophysical Year," pp. 209-216; A. P. Kapitsa, "Preliminary Results of the Seismic Sounding of the Glacial Cover of the Antarctic in the Course of the First Soviet Antarctic Expedition of the Academy of Sciences of the USSR, 1955-1957," pp. 217-238; A. I. Popov, "Freezing-Geological Stratification in the Permafrost Area of the USSR," pp. 239-264; A. N. Krenke and E. S. Troshkina, "Methods of Collection of Ice Samples for Spore-Dust Analysis," pp. 265-267; A. P. Kapitsa, "Mechanical Boring of Fresh Firm Ice," pp. 268-271; K. M. Ryabtseva and G. K. Tushinskiy, "Stratification of Snow as an Index of the Characteristics of Natural-Territorial Complexes," pp. 272-283; E. M. Shcherbakova, "Tabulation of Evidence of Traces of Ancient Glaciation in the Mountains," pp. 284-287; E. S. Troshkina, "Study of the Physical Properties of Snow and of the Process of Metamorphosis of Snow Layers," pp. 289-294.

126a. Information Collection of Works on the International Geophysical Year. El'brus Expedition of Moscow State University and the Institute of Applied Geophysics of the Academy of Sciences of the USSR. Chief editor G. K. Tushinskiy. Moscow, 1958, No. 2, 212 pp. (illus., 2 maps) (International Geophysical Year, 1957-1958).

Contents: V. B. Nefedova, "On the History of Investigation of Modern Glaciation of the El'brus," pp. 5-22; N. V. Koronovskiy and E. M. Milankovskiy, "New Data on the Geological Structure and History of Formation of the El'brus Volcano," pp. 23-72; A. V. Bryukhanov, "On the Results of Taking of Rotating Photo-theodolite Exposures in 1956 and 1957 on the Glaciers of the Southern Slope of El'brus," pp. 73-82; E. S. Troshkina, "Characteristics of Glacial Melting on the Southern Slope of El'brus," pp. 83-91; K. M. Ryabtseva, "On the Structured Earths of the Terskol'skiy Section of the Southern Slope of El'brus (From Observations in 1957)," pp. 92-98; L. M. Rudakov, "Glacio-morphological Investigations on the Northern Slope of El'brus," pp. 99-116; G. K. Tushinskiy, "Post-Lava Glaciation on El'brus and Its Dynamics," pp. 117-166; E. M. Shcherbakova, "Main Types of Precipitations of the Snow and Glacial Complex in the El'brus Area," pp. 167-183; G. M. Kuvayeva and G. K. Suakvelidze, "Migration of Water Vapors and Re-crystallization Processes in the Mass of Snow Cover," pp. 184-200; I. V. Molokanov, "An Instrument for the Long-range Determination of the Moisture Content of Soils," pp. 201-208.

126b. Information Collection on the Works of the Geographical Faculty of Moscow State University for the International Geophysical Year. Khibiny Expeditions for the MGG and Questions of Methodology for Glaciological Investigations. Chief editor G. K. Tushinskiy. Moscow, 1958, No. 3, 99 pp. (illus.) (International Geophysical Year 1957-1958).

Contents: V. F. Perov, "On the Classification of Snow Flakes of Mountainous Countries," pp. 3-11; B. A. Savel'yev, V. A. Sudakov, "Crystalline-Optical Investigations of Snow," pp. 12-28; V. V. Kryuchkov, "Boundaries of Ancient Vegetation as Locators of Climatic Conditions," pp. 29-40; R. A. Afremova, V. I. Kravtsova. "On the Draft of a Program for An Atlas of the Glaciers of the USSR," pp. 41-60; G. N. Golubyev, "Some Questions of Methodology in the Study of the Processes of Flow from Glaciers," pp. 61-76; G. N. Golubyev, M. N. Laptev, K. K. Edel'shteyn, "On Some Questions of Methodology in the Study of Snow Cover," pp. 77-91; K. M. Gromov, "Observations on the Moisture of Soils at the Khibinskiy Station of Moscow State University in 1957," pp. 92-94.

127. Knyp, V., "In the Icy Heart of the Pamirs," Trud [Labor], 19, 21, 26, 27 December 1958.

On the work of the high-altitude station on the Fedchenko Glacier.

128. Korzhenevskiy, N. L., "Investigations of the Fedchenko Glacier," Priroda [Nature], No. 1, 1958, pp. 57-60.

Glacial-cryolitic research.

129. "A Laboratory on the Ice (The MGG Is Moving Forward..)," Vokrug Sveta [Around the World], No. 5, 1958, p. 9

A short note on the glacial investigations of the French expedition to Greenland.

130. Luknitskiy, P., "Investigating the Secrets of Nature..", Literaturnaya Gazeta [Literary Gazette], 5 August 1958.

On the work of the Soviet scientists investigating the Fedchenko Glacier.

131. Makarevich, K. G., "The Investigation of the Glaciers of the Zailiyskiy Altai Mts. Under the Program of the International Geophysical Year," Vestnik [Herald] of AN Kazakh SSR, No. 4, 1958, pp. 94-96.

132. Perov, V. F., "The First Glacier in the Khibiny Mts." Priroda [Nature], No. 7, 1958, p. 88 (illus.).

133. Pronin, A., "The Fedchenko Glacier (Under the MGG Program)," Nauka i Zhizn' [Science and Life, No. 8, 1958, pp. 33-35, (illus.).



134. Works of the Tan'-Shan' Physico-Geographical Station. Glaciology I. Frunze, 1958, 91 pp. (illus. and 1 map) (AN Kirghiz SSR. Department of Geography. International Geophysical Year).

135. Suslov, V., "The Conquest of the Fedchenko Glacier," Izvestiya [News] of AN Uzbek SSR, No. 6, 1958, p. 89

136. Suslov, V. G., "The 1957 Expedition to the Fedchenko Glacier." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 64-67 (illus.).

137. Tushkinskiy, G. K. and Sulakvelidze, G. K., "Glaciological Work on El'brus." Ibid., No. 5, 1958, pp. 56-63 (illus. and 1 map)

138. Shcherbakova, E. M., "Ancient Glaciation in the El'brus Area," Nauchniye Doklady Vysshney Shkoly. Geologo-geograficheskyye Nauki [Scientific Reports of the Higher School. Geological-Geographical Sciences], No. 2, 1958, pp. 84-94 (illus.).

See also Nos. 509, 520, 529, 530, 536-541, 612.

## 11. Oceanography

139. Alekseyev, A. P., "Oceanographic Investigations of the Expedition Vessel Sevastopol'," Priroda [Nature], No. 4, 1958, pp. 111-112.

140. Andreyeva, I. B. and Udintsev, G. B., "The Structure of the Bottom of the Sea of Japan According to Data from the Investigations of the Expedition on the Hero," Izvestiya [News] of AN USSR, Series on Geology, No. 10, 1958, pp. 3-20 (tables).

141. Birshteyn, Ya. A., Savilov, A. I., and Udintsev, G. B., "Trawling at the Maximum Depth of the Pacific Ocean," Priroda [Nature], No. 3, 1958, pp. 70-71.

142. Bogorov, V. G., "The Second Expedition on the Hero Under the MGG Program." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 78-81.

143. Bogorov, V. G., "The 26th Voyage of the Hero," Kul'tura i Zhizn' [Culture and Life], No. 9, 1958, pp. 25-31 (illus.).

On the scientific work in the Pacific Ocean of the expedition vessel of the Institute of Oceanography of the AN USSR.

144. Bogorov, V. G., "On the Hero in the Central Pacific," Priroda [Nature], No. 8, 1958, pp. 66-73 (illus.).

145. Bogorov, V., "Four Months in the Pacific Ocean," Sovetskiy Flot [Soviet Fleet], 26 March 1958.

On the results of the scientific expedition on the oceanographic vessel Hero.

146. Grabovskiy, V. I., Kolesnikov, A. G., and Ivanov, A. A., "Expedition Research on the Vessel Mikhail Lomonosov, (Hydro-physical work in the Atlantic Ocean)," Vestnik [Herald] of AN USSR, No. 4, 1958, pp. 86-90 (2 maps).

147. Dobrovol'skiy, A., "The Hero on the Ocean," Nauka i Zhizn' [Science and Life], No. 7, 1958, pp. 35-39 (illus.).

148. Dobrovol'skiy, A. D., "The First Voyage of the Hero Under the MGG Program." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 74-77.

Varied oceanographic research in the Western Pacific.

149. Dobrovol'skiy, A. D., The First Voyage of the Expedition Vessel "Hero" in the Pacific Ocean Under the Program of the International Geophysical Year (Test of a Lecture). Moscow, 1958, 18 pp. (All-Union Society for the Dissemination of Political and Scientific Knowledge. Materials to aid the lecturer.).

150. Yerofeyev, P. and Nikiforovskiy, V., "Under Sail," Izvestiya [News], 2 March 1958.

On the results of the expedition on the oceanographic vessel Sedov.

151. Ivanov, A., "The Mikhail Lomonosov Investigates the Atlantic Ocean," Sovetskiy Flot [Soviet Fleet], 31 July 1958.

On the voyage of the research vessel of the Marine Hydrophysical Institute.

152. Ivanov, G. S. and Istomin, Yu. V., "Notes on the First Voyage of the Expedition Vessel Mikhail Lomonosov." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Collection, No. 5, 1958, pp. 45-51 (illus.).

On hydrophysical and oceanographic investigations in the Atlantic Ocean.

153. Kazanskiy, M., "In the Waters of the Atlantic," Sovetskiy Flot [Soviet Fleet], 25, 26, 30 July 1958.

On the voyage of the oceanographic expedition vessel Sedov.

154. Kazanskiy, M. M., "Under Sail in the Atlantic. The Long Expedition of the Oceanographic Vessel Sedov," Ibid., 11, 12, 14 January 1958.

From the diary of the Scientific Director of the Interdepartmental Atlantic expedition.

155. Lisitsyn, A. P. and Zhivago, A. V., "The Relief and Sediments of the Ocean Floor in the Southern Atlantic," Izvestiya [News], of AN USSR, Series on Geography, No. 2, 1958, pp. 9-21 (illus., 1 map); No. 3, 1958, pp. 22-36 (illus.).

156. Mokichev, V. and Shatskov, V., "The Hero in the Pacific Ocean," Izvestiya [News], 3 August 1958.

On the study of the problems of the Pacific Ocean on the expedition vessel Hero.

157. Morozov, A. P., "Investigation of the Ocean Swell on the Second Antarctic Voyage of the Expedition Vessel Ob'." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Collection, No. 5, 1958, pp. 38-44 (illus.).

158. Pavlov, N., "The Hero in the Pacific Ocean," Sovetskiy Flot [Soviet Fleet], 5-7 August 1958.

Notes by the First Mate on the third voyage of the expedition vessel Hero.

159. Plakhotnik, A., "The Significance of the MGG for Navigation," Morskiy Flot [Ocean Fleet], No. 11, 1958, pp. 20-22 (illus.).

160. "Underwater Volcanoes and a Non-Existent Threshold," Vokrug Sveta [Around the World], No. 6, 1958, p. 4.

On investigation of the ocean floor.

161. Suzyumov, E., "The Expedition Vessel Mikhail Lomonosov in the Atlantic," Morskoy Flot [Ocean Fleet], No. 10, 1958, pp. 20-22.

162. Sysoyev, N. N., "Automatic Buoy Stations," International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 48-55 (illus.).

Oceanographic investigations with the aid of automatically-operating instruments.

163. Sysoyev, N., "New Investigations of Soviet Scientists," Vodnyy Transport [Water Transportation], 20 November 1958.

On investigations in the Gulf of Alaska carried out by the Soviet expedition on the oceanographic vessel Hero.

164. Sysoyev, N. N., Udintsev, G. B., and Andreyeva, I. B., "Results of the Seismo-Acoustical Investigations of the Floor of the Sea of Japan," Doklady [Reports] of AN USSR, Vol. 119, No. 3, 1958, pp. 575-578.

165. Udintsev, G. B., "The Discovery of a Deep-water Trench in the Western Pacific," Priroda [Nature], No. 7, 1958, pp. 85-88 (illus.).

On the oceanographic investigations of the expedition vessel Hero.

166. Shuleykin, V. V., "Some Investigations on the Oceanographic vessel Sedov," ibid., No. 10, 1958, pp. 59-67 (illus.).

See also Nos. 29, 45, 556, 567.

## 12. Rockets and Satellites

### Popular Scientific Literature

(1) Information on the Launching of Satellites. TASS Reports

167. "It Was Made in the USSR. TASS Report," Pravda [Truth], 6 October 1957.

On the launching of the first Soviet artificial earth satellite.

168. "Tass Report," ibid., 5 October 1957.

On the launching of the second Soviet artificial earth satellite.

169. "On the Launching of the Third Soviet Artificial Earth Satellite, Tass Report," Ibid., 16 May 1958.

## (2) General Questions

170. Al'tshuler, S., "The Attack on the Cosmos," Bibliotekar' [The Librarian], No. 12, 1957, pp. 10-16.

Contains a recommended list of readings on rockets and satellites and on the MGG.

171. Astrov, M., "The Mysteries of the Satellite," Znaniye-Sila [Knowledge Is Power], No. 11, 1957, pp. 12-13.

172. Berg, A. I., "Soviet Satellites and Radio-electronics," Radio [Radio], No. 1, 1958, pp. 3-5.

173. Badalyan, G. S., "Artificial Satellites and Interplanetary Travel," Yerevan, 1958, 120 pp. (AN of Armenian SSR) [Bibliography of 17 titles].

174. Bazykin, V., "Flying Laboratories of the Cosmos," Molodoy Kommunist [Young Communist], No. 1, 1958, pp. 65-71 (illus.).

On the first and second earth satellites. On the significance for the solution of scientific problems of the launching of the earth satellites.

175. "A Talk with An Earth Satellite," Vokrug Sveta [Around the World], No. 12, 1956, pp. 12-13 (illus.).

On the prospectives of utilization of an earth satellite. A report from the future.

176. Bibikov, E. S., "The First Artificial Satellites of the Earth." Under the editorship of Prof. N. F. Kunin, Dr. of Physico-Mathematical Sciences. Chelyabinsk, 1957, 27 pp. (Chelyabinsk Oblast Department of the Society for the Dissemination of Political and Scientific Knowledge of the RSFSR. To aid the lecturer.) [Bibliography of 16 titles].

177. Blinova, E., "The Earth Satellite and Weather Forecasting." Izvestiya [News], 24 October 1957.

178. Varvarov, N. A., "Artificial Earth Satellites," Nauka i Zhizn' [Science and Life], No. 2, 1957, pp. 17-21.

179. "A Great Victory of Creative Thinking," Interview with E. K. Fedorov, Corresponding Member of the Academy of Sciences of the USSR, "Pravda [Truth], 6 October 1957.

The study of the upper atmosphere.

180. "The Great Triumph of Soviet Science and Technique. Interview with Academician A. V. Topchiyev," Molodoy Kommunist [Young Communist], No. 1, 1958, pp. 61-65.

On the political and scientific significance of the launching of the artificial earth satellite.

181. Goryelov, A., "Artificial Satellites," Nauka i Zhizn' [Science and Life], No. 7, 1957, p. 60.

On the literature devoted to the problem of the building of an artificial earth satellite.

182. Gritsenko, Yu., "The Launching of the Artificial Earth Satellites Is a Triumph of Soviet Science and Technique," Kiev, 1958, 35 pp. (Kiev Oblast Dept. of the Society for the Dissemination of Political and Scientific Knowledge of the Ukrainian SSR) [Biblio.].

183. Dobronravov, V. V., "The Soviet Artificial Earth Satellites," Elektrichestvo [Electricity], No. 12, 1957, pp. 1-2.

On the first and second artificial earth satellites. General characteristics and the scientific significance of the launching of the artificial earth satellites.

184. Dyukrok, A., "The Road to the Cosmos," Inostrannaya Literatura [Foreign Literature], No. 10, 1958, pp. 206-210.

In the journal is printed a translation from the French of a chapter of the book by A. Dyukrok, The Road to the Cosmos.

185. "The Launching of the Second Artificial Earth Satellite Is a New Triumph for Soviet Science and Technique," Pravda [Truth], 5 November 1957.

186. Zveryev, M. and Polezhayev, D., "Outstanding Achievements of Soviet Science and Technique," Propagandist [The Propagandist], No. 11, 1957, pp. 89-91.

On the significance of the launching of the artificial earth satellites.

187. Zigel', F., The Artificial Earth Satellite. Moscow: Uchpedgiz [State Training and Pedagogical Literature Publishing House] of the RSFSR, 1956, 96 pp. (illus.).

188. Konaytis, G., "A New Stage in the Development of Science," Kommunist [The Communist] (Vil'nyus), No. 11, 1957, pp. 37-41.

189. Krasovskiy, V. I., "The Upper Atmosphere and Its Investigation With the Aid of the Artificial Earth Satellite," Pravda [Truth], 10 October 1957.

190. Krylov, Yu. and Rasumeyev, V., A Second Moon, Moscow: Molodaya Gvardiya [Young Guard], 1957, 46 pp. (illus.).

191. Kuznetsov, V., "The Secrets of the Ionosphere Will Be Discovered," Sovetskaya Aviatsiya [Soviet Aviation], 15 October 1957.

Investigations of the upper atmosphere with the aid of the artificial earth satellite.

192. Kushnerevskiy, Yu. V., "In the Upper Layers of the Atmosphere," Nauka i Zhizn' [Science and Life], No. 3, 1957, pp. 11-13.

193. Levantovskiy, V. I., An Account of the Artificial Satellites. Moscow: Gostekhizdat [State Publishing House of Theoretical and Technical Literature], 1957, 96 pp. (illus.). [Biblio. of 9 titles].

194. Levshina, O. N. and Shalashova, E. P., The Artificial Earth Satellites. Interplanetary Flights. Recommended Bibliography. Scientific editor B. V. Lyapunova. Moscow, 1958, 45 pp. (State Library of the USSR im. V. I. Lenin. Central Polytechnical Library).

195. Lidov, M. L., "The Artificial Earth Satellites," Fizika v. Shkole [Physics in the School], No. 1, 1958, pp. 6-21.

The laws governing the movement of the artificial earth satellites around the Earth. Scientific measurements with the aid of the artificial earth satellites.

196. Lyapunov, B. V., "The Artificial Satellites," Nauka i Zhizn' [Science and Life], No. 1, 1958, p. 76.

197. Lyapunov, B., "Stations Beyond the Earth," Znaniye-Sila [Knowledge Is Power], No. 9, 1954, pp. 11-15.

198. Lyapunov, B., "On the Surface of the Ocean of Air," Tekhnika Molodezhi [Technique for Youth], No. 12, 1955, pp. 9-13.

On the prospects for the scientific utilization of high-altitude rockets.

199. Masyevich, A. G., "A New Effective Weapon for the Understanding of the Universe," Vestnik [Herald] of AN USSR, No. 1, 1958, pp. 8-12.

200. Merkulov, I. A., The Artificial Satellites As A Triumph of the Ideas of K. E. Tsiolkovskiy. Moscow: Znaniye [Knowledge], 1958, 71 pp. (All-Union Society for the Dissemination of Political and Scientific Knowledge. Series 4, No. 8) [Biblio.].

F  
1  
2

201. Mirtov, B., "A Flying Laboratory," Komsomol'skaya Pravda [Komsomol Truth], 17 October 1957.

On the research which is being carried out with the aid of the artificial earth satellite.

202. Mikhnevich, V., "An Automatic Laboratory in the Cosmos," Krasnaya Zvezda [Red Star], 14 November 1957.

203. Mitskevich, V., "A Laboratory for Research Above the Atmosphere," Sovetskiy Flot [Soviet Fleet], 30 October 1957.

On the importance of a study of the movements of the artificial earth satellite for the solution of problems connected with the upper atmosphere.

204. "Our Satellites," Vokrug Sveta [Around the World], No. 1, 1958, pp. 1-3.

205. Nesmeyanov, A. N., "The Great Achievement of Soviet Science," Vestnik [Herald], of AN USSR, No. 11, 1958, pp. 3-9.

Speech delivered on 3 October 1958 in the Hall of Columns of the House of the Unions at a gathering of scientists and representatives of the public of the city of Moscow honoring the anniversary of the launching of the first artificial earth satellite.

206. Nesmeyanov, A. N., "On the Launching of the First Artificial Earth Satellites," Ibid., No. 1, 1958, pp. 5-7.



207. Nosmeyanov, A. N., "The Problem of the Building of an Artificial Earth Satellite," Pravda [Truth], 1 July 1957.

208. Nikitin, P. I., The Artificial Earth Satellites. Moscow: Publishing House of DOSAAF, 1958, 88 pp.

209. "On the Artificial Earth Satellite. Interview with Prof. Dr. of Tech. Sciences Yu. A. Pobedonostsev," Sovetskaya Aviatsiya [Soviet Aviation], 6 October 1957.

F 210. Pakhuto, S. A., The Artificial Earth Satellite. Moscow, 1957,  
1 46 pp. (Society for the Dissemination of Political and Scientific  
2 Knowledge of the Belorussian SSR, No. 26).

211. The First Soviet Artificial Earth Satellites. Moscow, 1958,  
24 pp. (AN USSR).

212. Petrov, V., The Artificial Earth Satellite. Moscow: Voenizdat [Military Publishing House], 1958, 306 pp. (Popular Science Library) [Biblio.].

213. Petrov, V., "The Artificial Earth Satellites and A World Telecommunications Center," Zvezda [The Star], No. 4, 1957, pp. 160-164.

214. Pisarzhevskiy, O., "To Meet the Stars," Moscow, No. 1, 1958, pp. 125-130.

215. Pobedonostsev, Yu. A., "The Artificial Earth Satellites and Ballistic Rockets," Vestnik Vozdyshnogo Flot [Herald of the Air Force], No. 11, 1957, pp. 9-16 (illus.).

216. Pobedonostsev, Yu. A., The Artificial Earth Satellite. From the Series of Lectures on "Modern Problems of Astronautics" (From the materials of the "Sunday Lectures" of the Polytechnical Museum). Moscow: Znaniye [Knowledge], 1957, 72 pp. (All-Union Society for the Dissemination of Political and Scientific Knowledge. Series 4, Nos. 21-22) [Biblio. of 12 titles].

217. Pobedonostsev, Yu., "Reconnaissance of the Cosmic Depths," Oktyabr' [October], No. 9, 1957, pp. 186-187.

Scientific research with the aid of rockets and satellites.

218. Pobedonostsev, Yu. A., "The Triumph of Soviet Science," Nauka i Zhizn' [Science and Life], No. 11, 1957, pp. 8-10.

On the significance of scientific investigations with the aid of the artificial earth satellite.

219. Pokrovskiy, G. I., "Architecture in the Cosmos," Tekhnika Molodezhi [Technique for Youth], No. 12, 1957, pp. 16-19.

On the intercontinental rocket and the artificial earth satellite.

220. Popov, I. I., Soviet Artificial Earth Satellites. Simferopol', 1958, 42 pp. (Society for the Dissemination of Political and Scientific Knowledge of the Ukrainian SSR. Crimean Oblast Department. Aid to the lecturer) [Biblio.].

221. Razorenov, L. and Fradkin, M., "The Artificial Earth Satellites and the Problems of Science," Sovetskiy Flot [Soviet Fleet], 13 December 1957.

F  
1  
2

222. "The Rocket is Flying in the Stratosphere. Interview with Prof. Dr. of Physico-Math. Sciences E. G. Shvidkovskiy." Sovetskaya Aviatsiya [Soviet Aviation], 14 April 1958.

223. Savel'yev, K., "How and Why Does An Artificial Earth Satellite Move?", Pravda [Truth], 13 October [no year given] (Answers to questions of readers).

224. Sedov, L. I., "The Outstanding Triumph of Soviet Science," Slavyanye [The Slava], No. 11, 1957, pp. 21-23.

225. Sedov, L. I., "The Artificial Earth Satellite," Novoye Vremya [New Times], No. 41, 1957, p. 11.

226. "The Earth Satellite," Agitator [The Agitator], No. 20, 1957, pp. 6-10.

227. "The Secrets of the Cosmos. Discussion by F. Yu. Zigel', Member of the Astro-Geodetic Society," Trud [Labor], 12 November 1957.

On the scientific problems which can be solved with the aid of the artificial earth satellite.

228. Tarantsov, A., "Our Soviet Satellite," Radio [Radio], No. 12, 1957, pp. 3-5.

229. Topchiyev, A., "A Great Victory of Soviet Science. On the Launching in the USSR of the World's First Artificial Earth Satellite," Pravda [Truth], 16 October 1957.

230. Fedorov, E. K., "The New Victory of Soviet Science," Literaturnaya Gazeta [Literary Gazette], 2 April 1958.

Atmospheric research with the aid of the artificial earth satellite.

231. Fedorov, E. K., "With the Aid of Rockets and Satellites," Nauka i Zhizn' [Science and Life], No. 5, [no year given], pp. 11-16.

On the development of the technique of research on the upper atmosphere and cosmic space.

232. Khvat, L., "Pioneers of Cosmo-nautics," Yunost' [Youth], No. 12, 1957, pp. 85-88.

On the scientific significance of the launching of the first and second artificial earth satellites.

233. Khlebtsevich, Yu., "Subjugator of Space," Znaniye-Sila [Knowledge Is Power], No. 6, 1958, pp. 8-9.

Use of the artificial earth satellite for television.

234. Khmel'nitskiy, A., "Science and Technical Progress," Znamya [The Banner], No. 9, 1958, pp. 126-137.

The importance for science and technical progress of the launching of the artificial earth satellite.

235. Chestnov, F., "The Assault on the Ionosphere," Sovetskiy Flot [Soviet Fleet], 27 April 1958.

236. Shternfel'd, A. A., Artificial Satellites. Second revised and enlarged edition. Moscow: Gostekhizdat [State Publishing House of Theoretical and Technical Literature], 1958, 296 pp. (illus.).

237. Shternfel'd, A. A., "How A Satellite Moves," Izvestiya [News], 8 October 1957.

238. Shternfel'd, A. A., From Artificial Satellites to Interplanetary Flights. Moscow: Gostekhizdat, 1957, 126 pp.

239. Shternfel'd, A. A., "Questions and Answers on the Satellites," Tekhnika Molodezhi [Technique for Youth], No. 2, 1958, pp. 5-7.

240. Shcheglov, V., "Some Results of the Flight of Soviet Satellites," Krasnaya Zvezda [Red Star], 16 April 1958.

241. Shcherbakov, A., "The Scientific Significance of the Artificial Earth Satellite," Ibid., 6 October 1957.

242. Yakovkin, A. A., The Artificial Earth Satellites. Kiev: Publishing House of AN UkrSSR, 1958, 50 pp. (AN UkrSSR. Council for Scientific-Technical Propaganda) [Biblio.].

### (3) The First Soviet Artificial Earth Satellite

243. Ambartsumyan, V., "The Basis Has Been Laid for Cosmic Flight," Pravda [Truth], 11 October 1957.

244. Belousov, V., "The Central Event of the International Geophysical Year," Ibid., 21 October 1957.

245. Varvarov, N., "A Cosmic Scout," Literaturnaya Gazeta [Literary Gazette], 10 October 1957.

246. "The Great Achievement of Soviet Science," Krasnaya Zvezda, [Red Star], 10 October 1957.

Description of the artificial earth satellite, its orbital course. Scientific research with the aid of the artificial earth satellite.

247. Dobronravov, V. V., "On the Way to Conquest of Interplanetary Space," Grazhdanskaya Aviatsiya [Civil Aviation], No. 12, 1957, p. 325.

The scientific importance of the launching of the artificial earth satellites.

248. Dobronravov, V., "The Path to Distant Skies," Komsomol'skaya Pravda [Komsomol Truth], 8 October 1957.

249. Karyakin, L. I., "The USSR Has Opened the Era of Interplanetary Travel," Vestnik Svyazi [Communications Review], No. 10, 1957, p. 63.

A general description of the artificial earth satellite and its flight.

250. "A Mighty Contribution to World Science," Izvestiya, [News], 6 October 1957.

251. Krushinskiy, S., "The Satellite in Flight," Pravda [Truth], 6 October 1957.

252. "A New Era in the History of World Science," Grazhdanskaya Aviatsiya [Civil Aviation], No. 10, 1957, pp. 13-14.

A general description of the artificial earth satellite and of its orbital movement. On the importance of the artificial earth satellite for science and aviation technique.

253. Polovnikov, A., "The Great Victory of Soviet Science. Interview with the Director of the Pulkovo Observatory, Prof. A. A. Mikhailov, Corresponding Member of the AN USSR," Zvezda [The Star], No. 11, 1957, pp. 201-203.

254. "The Soviet Artificial Earth Satellite," Izvestiya, [News], 8 October 1957.

Trackings of the artificial earth satellite, its construction and instrumentation. Investigations being carried out with the aid of the artificial earth satellite.

255. "The Soviet Artificial Earth Satellite," Pravda [Truth], 9 October 1957.

The orbit of the artificial earth satellite, tracking of its movement. Description of the satellite, its radio signals.

256. "The Soviet Artificial Earth Satellite," Komsomol'skaya Pravda [Komsomol Truth], 9 October 1957.

Trackings of the artificial earth satellite, a description of the satellite and its radio signals.

257. "The Triumph of Soviet Science and Technique," Pravda [Truth], 6 October 1957.

258. "The Triumph of Soviet Science and Technique," Fizika v. Shkole [Physics in the School], No. 6, 1957, pp. 3-4.

A general description of the artificial earth satellite and its orbit.

259. Shternfel'd, A., "The Movement of an Artificial Satellite," Krasnaya Zvezda [Red Star], 8 October 1957.

(4) The Second Soviet Artificial Earth Satellite

260. Blagonravov, A. A., "A Remarkable Gift to the Fatherland," Sovetskiy Flot [Soviet Fleet], 5 November 1957.

261. "The Second Soviet Artificial Earth Satellite." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 4, 1958, pp. 31-40.

F  
1  
2

262. "The Second Soviet Artificial Earth Satellite," Komsoml'skaya Pravda [Komsomol Truth], 14 November 1957.

Trackings of the artificial earth satellite. Investigations being carried out with the aid of the satellite.

263. "The Second Artificial Earth Satellite. Materials Published in the Newspaper 'Pravda'." Moscow: Pravda, 1957, 48 pp.

264. "The Second Soviet Artificial Earth Satellite," Pravda [Truth] 13 November 1957.

The orbit of the satellites and its changes. Trackings of the satellite and its construction. Scientific measurements being carried out with the aid of the satellite.

265. "The Second Soviet Artificial Earth Satellite," Radio [Radio] No. 12, 1957, pp. 24-29.

266. "The Second Soviet Artificial Earth Satellite in the Service of Science," Sovetskiy Flot [Soviet Fleet], 14 November 1957.

267. Danilin, B. S., "Excursion into the Cosmos," Nauka i Zhizn' [Science and Life], No. 12, 1957, pp. 4-8.

The construction of the satellite. Apparatus for the study of cosmic rays and ultra-violet and x-ray radiation from the sun.

268. Dobronravov, V. V., "From the Cosmic Laboratory to the Interplanetary Ship," Sovetskaya Aviatsiya [Soviet Aviation], 5 November 1957.

Description of the satellite. Research being carried out with its aid. The problem of space flight.

269. "How the Second Satellite Was Built," Izvestiya, [News], 14 November 1957.

270. Pobedonostsev, Yu. "Ever Farther into the Cosmos," Krasnaya Zvezda [Red Star], 5 November 1957.

General description of the satellite. Research on the upper atmosphere.

271. Pobedonostsev, Yu., "The Second Satellite," Novoye Vremya [New Times], No. 46, 1957, pp. 11-13.

272. Fedorov, E. K. "Satellite No. 2," Literaturnaya Gazeta [Literary Gazette], 5 November 1957.

#### (5) The Third Soviet Artificial Earth Satellite

273. "An Automatic Laboratory in the Cosmos," Radio [Radio], No. 7, 1958, pp. 3-5.

274. Varvarov, N., "A Cosmic Laboratory," Sovetskiy Flot [Soviet Fleet], 18 May 1958.

Description of the satellite. Investigation of the upper atmosphere.

275. Dobronravov, V. V., "On the Road to the Cosmos," Literaturnaya Gazeta [Literary Gazette], 29 May 1958.

General description of the artificial earth satellite.

276. "There is a Third Satellite!" Agitator [The Agitator], No. 11, 1958, pp. 7-9.

277. "How the Third Satellite Was Built," Izvestiya [News], 20 May 1958 (illus.).

278. "'A Cosmic Combine'", Interview with Academician A. A. Blagonravov, Komsomol'skaya Pravda [Komsomol Truth], 16 May 1958.

279. Krasovskiy, V. I., "Research on the Upper Atmosphere With the Aid of the Third Artificial Earth Satellite," Priroda [Nature], No. 12, 1958, pp. 71-78 (illus.).

280. Lyapunov, B., "The Third Soviet Star," Sovetskiy Flot [Soviet Fleet], 17 May 1958.

281. Mirtov, B. A., "Our Third Satellite Is In the Cosmos!" Nauka i Zhizn' [Science and Life], No. 7, 1958, pp. 1-6.

On scientific investigations with the aid of the artificial earth satellite.

282. "The Scientific Instrumentation of the Third Soviet Artificial Earth Satellite. Press Conference in the State Committee for Cultural Ties with Foreign Countries," Pravda [Truth], 17 May 1958.

283. "Our Third," Novoye Vremya [New Times], No. 21, 1958, pp. 3-4.

284. Petrov, V. P., "Orientation in the Cosmos," Nauka i Zhizn' [Science and Life], No. 10, 1958, pp. 7-12.

Investigation of the conditions of flight of the satellite.

285. "The Largest Space Laboratory in the World," Grazhdanskaya Aviatsiya [Civil Aviation], No. 6, 1958, pp. 6-7.

286. Safonov, V., "Listen To Its Voice! Notes of a Writer," Pravda [Truth], 23 May 1958.

287. Stanyukovich, K. P., "Our Third Tells Of This," Komsomol'skaya Pravda [Komsomol Truth], 16 May 1957 [1958?].

On installing the apparatus of the satellite.

288. "The Third Soviet. Interview With Engineer A. M. Kasatkin," Tekhnika Molodezhi [Technique for Youth], No. 8, 1958, pp. 18-19.

289. "The Third Soviet Artificial Earth Satellite," Pravda [Truth], 18 May 1957 [1958?].

The construction of the artificial earth satellite. Trackings of the satellite. Measurements being made with the aid of the satellite.



290. "The Third Satellite," Vestnik Vozdushnogo Flota [Herald of the Air Fleet], No. 6, 1958, p. 21.

291. Shternfel'd, A., "A Significant Comparison," Izvestiya [News], 18 May 1958.

On the kinetic and potential energy of the third Soviet satellite and of American satellites.

#### (6) Launchings of Rockets and Satellites Abroad

292. Burgess, E. K. "To the Frontiers of Space. Trans. from the English by S. I. Kuznetsov and N. A. Zaks. Editor D. L. Timrot. Moscow: Publishing House of Foreign Literature, 1957, 223 pp. [Biblio.].

293. Gremin, V., "Problems of Intercontinental Rockets and Artificial Satellites in the U.S.A. (Materials From the Foreign Press)." Voyenny Vestnik [Military Herald], No. 3, 1958, pp. 73-78 [Biblio. of 17 titles].

294. Dobronravov, V. V., "The Artificial Earth Satellite," Moskovskiy Propagandist [The Moscow Propagandist], No. 8, 1956, pp. 68-72.

On the launching of the earth satellite in the period of the MGG. American plan for an earth satellite.

295. Zakharov, A., "How the U.S.A. Is Solving the Problem of Building Artificial Satellites," Voenny Vestnik [Military Herald], No. 11, 1957, pp. 65-68.

296. "The Artificial Satellites Which Are to Be Launched in the U.S.A.," Radio [Radio], No. 7, 1957, pp. 24-25 (illus.).

297. The Artificial Earth Satellite. (Materials From the Seminar on the American "Vanguard" Project), Trans. from the English under the editorship of Yu. S. Kheebtsevich. Moscow: Soviet Radio, 1957, 76 pp. [Biblio].

298. Research Rockets for the International Geophysical Year. Compiled From Materials Published in the Foreign Press to 1 May 1957. Moscow, 1957, 76 pp. (All-Union Institute of Scientific and Technical Information) [Biblio].

299. Kravchenko, I., "The 'Explorer' Satellite," Nauka i Zhizn' [Science and Life], No. 4, 1958, p. 20.

On the American artificial earth satellite.

300. Lyapunov, V., "The First Step Into the Universe," Znaniye-Sila [Knowledge is Power], No. 2, 1957, pp. 30-31.

On the forthcoming launching of an artificial earth satellite under the MGG program. American plans for an artificial satellite.

301. "The Program in the U.S.A. for Launching Artificial Satellites," Radio [Radio], No. 4, 1958, p. 37.

#### Scientific Literature

##### (1) General Questions.

Programs, Assignments, Results of Research.

302. Alekseyev, P. P., Besyadovskiy, B. A., Golyshev, G. I., Izakov, M. N., Kasatkin, A. M., Kokin, G. A., Livshits, N. S., Masanova, N. D., and Shvidkovskiy, E. G., "Rocket Investigations of the Atmosphere," Meteorologiya i Gidrologiya [Meteorology and Hydrology], No. 8, 1957, pp. 3-13.

303. Bulletin of the Optical Tracking Stations for Artificial Earth Satellites. Moscow, 1958 (Astronomical Council of the USSR).

Issue 1, 19 pp., (5 p. supp.).

Issue 2, 16 pp., (3 p. supp.).

304. The Artificial Earth Satellites [Collection of Articles]. Issue 1. "Results of Scientific Investigations Carried Out Under the MGG Program With the Aid of the First and Second Artificial Earth Satellites." Moscow: Publishing House of AN USSR, 1958, 94 pp. [Biblio.].

305. Ibid. Issue 2. "Results of Scientific Investigations, Obtained With the Aid of the Third Artificial Earth Satellite." Moscow: Publishing House of AN USSR, 1958, 83 pp. (illus.) [Biblio.].

306. Krasovskiy, V. I., Research on the Upper Atmosphere With the Aid of Artificial Satellites and Rockets. Moscow, Znaniye [Knowledge] 1958, 30 pp. (illus.). (All-Union Society for the Dissemination of Political and Scientific Knowledge. Series 8, Issue 2, No. 5).

307. "On the Washington Conference. Interview with Engineer A. M. Kasatkin," Technika Molodezhi [Technique for Youth], No. 11, 1957, p. 15.

On the report on a meteorological rocket by Soviet specialists at the International Conference on the Investigation of the Upper Atmosphere With the Aid of Rockets and Artificial Earth Satellites.

308. Petrov, A. A., and Khvostikov, I. A., "Prospects for Meteorological Research With the Aid of Artificial Earth Satellites." Main Administration of the Hydrometeorological Service. Committee for the Conduct of MGG. Information Collection, No. 5, 1958, pp. 3-11 (illus.) [Biblio. of 15 titles].

309. Preliminary Results of Scientific Investigations With the Aid of Rockets and of the First Soviet Artificial Earth Satellites. Collection of Articles. XIth Section of the MGG Program (Rockets and Satellites). No. 1, Chief editors A. A. Mikhaylov and others. Moscow: Publishing House of AN USSR, 1958, 150 pp. (illus.) [Biblio.].

310. "The Program of Research With the Aid of Rockets and Artificial Satellites Planned to Be Conducted During the MGG by the Soviet Union." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of the AN USSR. Information Bulletin, No. 3, 1957, pp. 32-36.

311. Rocket Research in the Upper Atmosphere. [Collection of Articles]. Special supplement (Vol. I) to journal Physics of the Atmosphere and the Earth. Edited by R.L.F. Boyd and M. J. Seton with Kh. S. V. Massey as consultant. Trans. from the English by V. M. Morozova, under the editorship of V. I. Krasovskiy. Moscow: Publishing House of Foreign Literature, 1957, 415 pp. (illus.) [Facing title page in English language] [Biblio.].

312. Results of Observations of Soviet Artificial Earth Satellites. Satellite 1958 8 (rocket). Moscow, 1958. (Institute of Theoretical Astronomy of AN USSR. Astronomic Council of AN USSR).

Issue 1, 16 May-30 June 1958, 31 sheets.

Issue 2, July 1958, 128 pp.

313. Skuridin, G. A., and Kurnosova, L. V., "Scientific Investigations With the Help of Artificial Earth Satellites," Priroda [Nature], No. 12, 1957, pp. 7-14.

314. Fedorov, E. K., "Investigation of the Upper Layers of the Atmosphere With the Aid of Rockets and Artificial Earth Satellites," ibid., No. 9, 1957, pp. 3-12.

315. Fedorov, E. K., "Scientific Investigations With the Aid of Rockets and Artificial Earth Satellites," Moskovskiy Propagandist [The Moscow Propagandist], No. 2, 1958, pp. 75-79.

316. Fedorov, E. K., Scientific Investigations With the Aid of Rockets and Artificial Earth Satellites. Moscow: Znaniye [Knowledge], 1958, 30 pp. (All-Union Society for the Dissemination of the Political and Scientific Knowledge. Series 4, No. 21).

317. Fedorov, E. K. and Skuridin, G. A., "Rockets and Artificial Earth Satellites in the Investigation of the Upper Atmosphere," Vestnik [Herald] of AN USSR, Vol. 27, No. 8, 1957, pp. 37-48.

318. Khrgian, A. Kh., "Geophysical Observations Carried Out With the Aid of Artificial Earth Satellites." International Geophysical Year. Interdepartmental Committee for the Conduct of MGG. Information Bulletin, No. 4, 1958, pp. 41-47 [Biblio.].

## (2) Composition, Density and Temperature of the Upper Atmosphere

319. Danilin, B. S., Mikhnevich, V. V., Repnev, A. I. and Shvidlovskiy, E. G., "The Problem of Measurement of the Pressure and Density of the Upper Layers of the Atmosphere With the Aid of Artificial Earth Satellites," Uspekhi fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1b, 1957, pp. 205-225 [Biblio. of 34 titles].

320. Danilin, B. S., "The Satellite Studies the Atmosphere," Nauka i Zhizn' [Science and Life], No. 12, 1958, pp. 23-27.

On methods of study of parameters of the upper layers of the atmosphere.

321. Izakov, M. N. and Kokin, G. A., "Measurements of the Temperature, Pressure, and Density of the Atmosphere With the Aid of Rockets." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Collection, No. 4, 1957, pp. 57-62.

322. Karyakin, L. I., "Investigation of the Upper Layers of the Atmosphere," Radio [Radio], No. 12, 1957, pp. 19-20.

323. Lidov, M. L., "Determination of the Density of the Atmosphere From Its Observed Braking Effect on the First Soviet Artificial Earth Satellites. In The Artificial Earth Satellites. Issue 1. Moscow: Publishing House of the AN USSR, 1958, pp. 9-20 (illus.) [Biblio. of 8 titles].

324. Mirtov, B. A., "Disturbances of the Gaseous Medium Caused by the Flight of the Satellite," In ibid., Issue 2. Moscow: Publishing House of the AN USSR, 1958, pp. 17-25 (illus.) [Biblio. of 7 titles].

325. Mirtov, B. A. and Istomin, V. G., "Investigation of the Ion Composition of the Ionized Layers of the Atmosphere," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1b, [1957?], pp. 227-238 (illus.) [Biblio. of 6 titles].

326. Mirtov, B. A., "Rocket Investigations of the Composition of the Atmosphere at High Altitudes," Ibid., Vol. 63, Issue 1b, 1957, pp. 181-196.

327. Mikhnevich, V. V., "Measure of Pressure in the Upper Atmosphere," ibid., Vol. 63, Issue, 1b, 1957, pp. 197-204 (illus.).

328. Mikhnevich, V. V. and Khvostikov, I. A., "The Study of the Upper Layers of the Atmosphere," Izvestiya [News] of AN USSR. Series on Geophysics, 1957, pp. 1393-1409 [Biblio. of 78 titles].

329. Mikhnevich, V. V., "Some Results of the Investigation of the Upper Atmosphere," Priroda [Nature], No. 5, 1958, pp. 71-72.

330. Mikhnevich, V. V., "Preliminary Results in the Determination of the Density of the Atmosphere Above 100 Km." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 26-31 (illus.) [Biblio. of 9 titles].

331. Okhotsimskiy, D. E., Eneyev, T. M., and Taratynova, G. P., "Determination of the Life-Span of An Artificial Earth Satellite and Investigation of the Secular Perturbances of Its Orbit," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1b, 1957, pp. 33-50 [Biblio. of 5 titles].

332. Shvidkovskiy, E. G., "Some Results of the Measurement of the Thermodynamic Parameters of the Stratosphere With the Aid of Meteorological Rockets." In The Artificial Earth Satellites. Issue 2, Moscow: Publishing House of AN USSR, 1958, pp. 10-16 (illus.).

333. El'yasberg, P. E., "Determination of the Density of the Upper Atmosphere from the Secular Perturbances of Elements of the Orbits of the First Two Artificial Earth Satellites." In ibid., Issue 1. Moscow: Publishing House of the AN USSR, 1958, pp. 21-24 [Biblio. of 4 titles].

### (3) The Ionosphere

334. Al'pert, Ya. L., "The Ionosphere and the Artificial Earth Satellites," Priroda [Nature], No. 10, 1958, pp. 71-77 (illus.).

335. Al'pert, Ya. L., "On the Method of Investigation of the Ionosphere With the Aid of the Artificial Earth Satellite," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 64, Issue 1, 1958, pp. 3-14 (illus.) [Biblio. of 4 titles].

336. Al'pert Ya., L., Dobryakova, F. F., Chudesenko, E. F., and Shapiro, B. S., "On Some Results of the Determination of the Electron Concentration of the Upper Region of the Ionosphere From Tracking of the Radio Signals of the First Earth Satellite," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences]. Vol. 65, Issue 2, 1958, pp. 161-174 (illus.).

337. Al'pert, Ya., L., Dobryakova, F. F., Chudesenko, E. F., and Shapiro, B. S., "On the Results of A Determination of the Electron Concentration of the Upper Region of the Ionosphere From Tracking of the Radio Signals of the First Earth Satellite." Doklady [Reports] of AN USSR, Vol. 120, No. 4, 1958, pp. 743-746.

338. Al'pert, Ya., L., Chudesenko, E. F., and Shapiro, B. S., "Results of the Investigation of the Upper Region of the Ionosphere From Tracking of the Radio Signals of the First Artificial Earth Satellite." In Preliminary Results of Scientific Investigations With the Aid of the First Soviet Artificial Earth Satellites and Rockets. Collection of Articles. No. 1. Moscow: Publishing House of AN USSR, 1958, pp. 40-52, suppl. pp. 53-108 (illus.) [Biblio. of 15 titles].

339. Al'pert, Ya. L., "The Composition of the Upper Ionosphere," Priroda [Nature], No. 6, 1958, pp. 86-87.

340. Gringauz, K. I. and Zelikman, M. Kh., "Measure of the Concentration of Positive Ions Along the Orbit of the Artificial Earth Satellite," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 16, pp. 239-252 (illus.) [Biblio. of 23 titles].

341. Gringauz, K. I., "Rocket Measurements of the Electron Concentration in the Ionosphere With the Aid of An Ultra-Short Dispersion Interferometer." In The Artificial Earth Satellites. Issue 1. Moscow: Publishing House of AN USSR, 1958, pp. 62-66 (illus.) [Biblio. of 8 titles].

342. Gringauz, K. I., "Rocket Measurements of the Electron Concentration in the Ionosphere With the Aid of An Ultra-Short Dispersion Interferometer." Doklady [Reports] of AN USSR, Vol. 120, No. 6, 1958, pp. 1234-1237 [Biblio. of 8 titles].

343. Zhekulin, L. A., "Electron Concentration Distribution According to Altitude From Data of Tests With Rockets and Artificial Earth Satellites and Its Influence on the Propagation of Radio Waves." In The Artificial Earth Satellites. Issue 1. Moscow: Publishing House of the AN USSR, 1958, pp. 67-79 (illus.) [Biblio. of 7 titles].

344. Istomin, V. G., "Investigation With Rockets and Satellites of the Ion Composition of the Earth's Atmosphere." In ibid., Issue 2. Moscow: Publishing House of the AN USSR, 1958, pp. 32-35 (illus.) [Biblio. of 3 titles].

345. Kazantsev, A. N., Romanova, T. S., and Klementenko, A. Ya., "Absorption of Radio Waves in the Ionosphere From Radio Trackings of the Artificial Earth Satellites," Radiotekhnika i Elektronika Radio Engineering and Electronics, Vol. 3, No. 9, 1958, pp. 1107-1121 [Biblio. of 10 titles].

346. Kazantsev, A., "Preliminary Data on the Propagation of Radio Waves," Radio [Radio], No. 12, 1957, pp. 7-8 (illus.).

347. Krasovskiy, V. I., "The Study of the Upper Atmosphere," Priroda [Nature], No. 5, 1957, pp. 55-60

348. Krasovskiy, V. I., "First Results of Observations of the Upper Atmosphere," ibid., No. 12, 1957, pp. 87-88.

349. Krasovskiy, V. I., "Soviet Investigations of the Ionosphere With the Aid of Rockets and Artificial Earth Satellites." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 36-49 (illus.) [Biblio. of 16 titles].

(4) Geomagnetism, Geodesy, Gravimetry,  
Electrostatic Fields of the Earth

350. Beletskiy, V. V., "The Movement of the Artificial Earth Satellite Relative to the Center of the Earth's Mass." In ibid., Issue 1, Moscow: Publishing House of AN USSR, 1958, pp. 25-43 (illus.) [Biblio. of 4 titles].

351. Dolginov, S. Sh., Zhuzgov, L. N., and Pushkov, N. V., "Preliminary Report on Geomagnetic Measurements From the Third Soviet Artificial Earth Satellite." In The Artificial Earth Satellites, Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 50-53 (illus.).

352. Imyanitov, I. M., "The Measure of Electrostatic Fields in the Upper Layers of the Earth's Atmosphere," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1b, pp. 267-282 (illus.) [Biblio. of 14 titles].

353. Kalashnikov, A., "The Satellite and Problems of Earth Magnetism," Izvestiya [News], 16 May 1958.

354. Kalinin, Yu. D., "A Magnetic Observatory in the Cosmos," Ogonyek [The Little Light], No. 22, 1958, pp. 2-3.

On the study of the Earth's magnetic field with the aid of the third artificial earth satellite.

355. Mikhaulov, A. A., "What Trackings of the Satellite Furnish to Geodesy," Znaniye-Sila [Knowledge Is Power], No. 3, 1958, p. 35.

356. Pushkov, N. V., and Dolginov, S. Sh., "Investigation of the Magnetic Field of the Earth With Artificial Satellites and Rockets," Uspekhi Fizicheskikh Nauk, [Progress in the Physical Sciences], 1957, Vol. 63, Issue 4, pp. 645-656 [Biblio. of 20 titles].

357. Sapparina, E., "A Celestial Earth Surveyor," Znaniye-Sila [Knowledge Is Power], No. 3, 1958, pp. 30-31.

Utilization of trackings of the artificial earth satellites for the precise measurement of dimensions and characteristic shapes of the Earth.

358. Taratynova, G. P., "On the Movement of the Artificial Satellite in the Central Gravitational Field of the Earth Through Atmospheric Resistance," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, 1957, Issue 1a, pp. 51-58 [Biblio.].



## (5) Micrometeors

359. Isakovich, M. A., and Roy, N. A., "The Acoustical Method of Measuring the Mechanical Parameters of Meteorites." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 81-82.

360. "The Artificial Satellite and Meteors," Komsomol'skaya Pravda [Komsomol Truth], 11 October 1957.

361. Komissarov, O. D., Nazarova, T. N., Neugodov, L. N., Poloskov, S. M., and Rusakov, L. A., "Investigation of Micrometeors From Rockets and Satellites." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 54-58 (illus.) [Biblio. of 11 titles].

263. Poloskov, S. M. and Nazarova, T. N. "Investigation of the Solid Constituent of Interplanetary Substance with the Aid of Rockets and Artificial Earth Satellites," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, 1957, Issue 1b, pp. 253-265 [Biblio. of 9 titles].

363. Fedynskiy, V. V., "The Artificial Earth Satellites and the Problem of the Meteor Hazard in Astronautics." Astronomical Calendar. Annual Volume, 1959. Variable section. Moscow, 1958, pp. 197-207.

## (6) Cosmic Radiation

364. Vernov, S. N., Tulinov, V. F., and Charakhch'yan, A. N., "The 27-Day Variations in the Intensity of Cosmic Rays in the Stratosphere," Doklady [Reports] of AN USSR, Vol. 122, No. 5, 1958, pp. 788-791 (illus.) [Biblio. of 5 titles].

A series of measurements of the intensity of cosmic rays in the stratosphere with the aid of sounding balloons.

365. Vernov, S. N., Grigorov, N. L., Logachev, Yu. I., and Chudakov, A. E., "The Measurement of Cosmic Radiation of An Artificial Earth Satellite." ibid., Vol. 120, No. 6, 1958, pp. 1231-1233 (illus.).

366. Vernov, S. N., Grigorov, N. L., Logachev, Yu. I., and Chudakov, A. E., "The Measure of Cosmic Radiation of An Artificial Earth Satellite." In The Artificial Earth Satellites. Issue 1. Moscow: Publishing House of AN USSR, 1958, pp. 5-8 (illus.) [Biblio. of 3 titles].

367. Vernov, S. N., Logachev, Yu. I., Chudakov, A. E., and Shafer, Yu. G., "Investigation of Variations in Cosmic Radiation," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, 1957, Issue 1b, pp. 149-162 (illus.) [Biblio. of 12 titles].

368. Vernov, S. N., Vakulov, P. V., Gorchakov, E. V., Logachev, Yu. I., and Chudakov, A. E., "The Study of the Solid Constituent of Cosmic Rays Beyond the Limits of the Atmosphere." In The Artificial Earth Satellites. Issue 2, Moscow: Publishing House of AN USSR, 1958, pp. 61-69 (illus.).

369. Vernov, S. N., Ginzburg, V. L., Kurnosova, L. V., Razorenov, L. A., and Fradkin, M. I., "The Investigation of the Composition of Primary Cosmic Radiation." Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, 1957, Issue 1a-1b, pp. 131-148 [Biblio. of 48 titles].

370. Kurnosova, L. and Fradkin, M., "Cosmic Rays and Satellites," Izvestiya [News], 18 May 1958.

371. Kurnosova, L. V., "On the Intensity of Cosmic Radiation," Priroda [Nature], No. 6, 1958, pp. 85-86 (illus.).

372. Kurnosova, L. V., Razorenov, L. A., and Fradkin, M. I., "The Heavy Nuclei in Primary Cosmic Radiation." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 70-74 (illus.) [Biblio. of 4 titles].

#### (7) Corpuscular Radiation

373. Ginzburg, V. and Kurnosova, L., "The Sun, Cosmic Rays, and Satellites," Izvestiya [News], 14 November 1957.

374. Krasovskiy, V. I., Kushnir, Yu. M., and Bordovskiy, G. A., "The Investigation of the Corpuscular Radiation of the Sun With the Aid of the Artificial Earth Satellite." Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 64, Issue 3, 1958, pp. 425-434 (illus.) [Biblio. of 38 titles].

375. Krasovskiy, V. I., Kushnir, Yu. M., Bordovskiy, G. A., Zakharov, G. F., and Svetlitskiy, E. M., "Detection of Corpuscles With the Aid of the Third Artificial Earth Satellite." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 59-60.

376. Chudakov, A. E., "The Study of Photons With the Aid of the Third Artificial Earth Satellite," Priroda [Nature], No. 12, 1958, pp. 88-90.

(8) Astrophysical Research

377. Vitinskiy, Yu., "Solar Research Is Continuing," Nauka i Zhizn' [Science and Life], No. 12, 1957, pp. 17-19.

378. Getmantsev, G. G., Ginzburg, V. L., and Shklovskiy, I. S., "Radio-Astronomical Investigations With the Aid of the Artificial Earth Satellites," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 66, Issue 2, 1958, pp. 157-161 [Biblio. of 11 titles].

379. Mandel'shtam, S. L. and Efremov, A. I., "Investigation of Short-Wave Ultra-Violet Solar Radiation," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1b, pp. 173-180 1957, [Biblio. of 24 titles].

380. Masevich, A., "A Cosmic Laboratory," Krasnaya Zvezda [Red Star], 17 May 1958.

Scientific investigations with the aid of the third artificial earth satellite.

381. Mikhaylov, A. A., "Current Problems of Astronomy," Nauka i Zhizn' [Science and Life], No. 11, 1958, pp. 55-60.

382. Nikol'skiy, G. M., "On the Possibility of Absorption of  $\text{La}$ -Radiation of the Sun By An Interplanetary Medium," Astronomicheskiy Zhurnal [Journal of Astronomy], Vol. 35, No. 4, 1958, pp. 657-659 [Biblio. of 9 titles].

Rocket data is used in the article.

383. Shklovskiy, I. S., "The Interplanetary Medium and Some Questions of the Physics of the Upper Atmosphere," ibid., Vol. 35, No. 4, 1958, pp. 557-571 [Biblio. of 26 titles].

The article examines rocket data which is solving the problems of the upper atmosphere and of cosmic space.

(9) Mechanics of Movement of Rockets  
and Satellites Along Orbits

384. Egorov, V. A., "Some Questions of the Dynamics of Flight Towards the Sun." Doklady [Reports] of AN USSR, Vol. 113, No. 1, 1957, pp. 46-49 [Biblio. of 9 titles].

385. Egorov, V. A., "Some Problems of the Dynamics of Flight Towards the Sun," Priroda [Nature], No. 12, 1958, pp. 3-9.

386. Egorov, V. A., "On Some Tasks in the Dynamics of Flight Towards the Sun." Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1a 1957, pp. 73-117 [Biblio. of 18 titles].

F  
1  
2

387. Egorov, V. A., "On the Solution of One Degenerating Variation Problem and the Optimal Development of A Cosmic Rocket." Prikladnaya Matematika i Mekhanika [Applied Mathematics and Mechanics], Vol. 22, No. 1, 1958, pp. 16-26.

388. Zigel', F. Yu., "On the Question of the Relation of the Limiting Case of Three Bodies to the Movement of Artificial Earth Satellites." Byulleten' Vsesoyuznogo Astronomicheskogo-Geodicheskogo Obshchestva, Bulletin of the All-Union Astronomical-Geodetical Society, No. 21 (28), 1958, pp. 14-16 (illus.) [Biblio. of 4 titles].

389. Kaplan, S. A., "Control of the Movement of Artificial Earth Satellites (ISZ) and Control of Trackings." Bureau of Astronomical Information of AN USSR, Astronomicheskiiy Tsirkulyar [Astronomical Circular], No. 189, 1958, pp. 1-3.

390. Malyutin, K., "How the Orbit of An Earth Satellite Is Changed," Sovetskaya Aviatsiya [Soviet Aviation], 26 October 1957.

391. Okhotsimskiy, D. E. and Eneyev, T. M., "Some Variational Problems Connected With the Launching of An Artificial Earth Satellite," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1a, 1957, pp. 5-32.

392. Pobedonostsev, Yu. A., "On the Laws Regulating the Movement of An Earth Satellite," Priroda [Nature], No. 1, 1958, pp. 19-25.

393. Sedov, L. I., "Dynamic Effects in the Movement of Artificial Earth Satellites." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 3-9 (illus.) [Biblio. of 9 titles].

394. Tsesevich, V. P., Satanova, E. A., and Grigoryevskiy, V. M., "On the Question of the Rotation of the Second Satellite." Bureau of Astronomical Information of AN USSR, Astronomicheskiy Tsirkulyar Astronomical Circular, No. 191, 1958, pp. 6-8.

395. Tsesevich, V. P., "On the Rotation of the Second Artificial Satellite On Its Axis." Ibid., No. 190, 1958, p. 5

396. Chebotaryev, G. A., "Symmetrical Trajectory of A Rocket for A Flight Around the Moon." Byulleten' Instituta Teoreticheskoy Astronomii [Bulletin of the Institute of Theoretical Astronomy] of AN USSR, Vol. 6, No. 7, 1957, pp. 487-492.

F  
1  
2

#### (10) Tracking of Rockets and Satellites.

397. Aralov, D., "In the Antarctic," Radio [Radio], No. 12, 1957, p. 12.

Reception of radio signals in the Antarctic from the first Soviet artificial earth satellite.

398. Astapovich, I. S. and Kaplan, S. A., Visual Trackings of the Artificial Earth Satellites. Moscow: Gostekhizdat [State Publishing House of Theoretical and Technical Literature], 1957, 83 pp. [Biblio.].

399. Berngardt, Yu., "At the North Pole," Radio [Radio], No. 12, 1957, pp. 13-14.

Reception at the North Pole of radio signals from the first Soviet artificial earth satellite.

400. "An Important Task for Radio Enthusiasts. Interview with Col-Gen. P. A. Belov, Chairman of the CC of DOSAAF USSR," Radio [Radio], No. 10, 1957, p. 6.

401. Vasilishchenko, V., "An Unusual DZ," Radio [Radio], No. 12, 1957, pp. 14-15.

Radio enthusiasts receive signals from the Soviet satellite.

402. Gindin, E. Z., Leykin, G. A., Lozinskiy, A. M., and Masevich, A. G., "Optical Tracking of the Artificial Earth Satellites." In Preliminary Results of Scientific Investigations With the Aid of the First Soviet Artificial Earth Satellites and Rockets. Collection of Articles No. 1. Moscow, 1958, pp. 5-39 (illus.).

403. Danilenko, I. V., "Computation of the Optical Barrier." Astronomical Council of AN USSR. International Geophysical Year. Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ [Bulletin of Optical Tracking Stations for the Artificial Earth Satellites], No. 2, 1958, pp. 1-2.

404. Dadayev, A., "Trackings of the Earth Satellite. Materials from the Pulkovo Observatory," Sovetskaya Aviatsiya [Soviet Aviation], 11 October 1957.

405. Deych, A. N. "Determination of the Photographic Position of An Earth Satellite According to Two Fixed Stars," Astronomicheskiy Zhurnal [Journal of Astronomy], Vol. 35, No. 5, 1958, pp. 810-818.

F  
1  
2

406. Dobronravin, P., "Trackings of the Earth Satellites Are Continuing," Sovetskiy Flot [Soviet Fleet], 7 December 1957.

407. Dubrovin, V., "A Direction-Finding Attachment," Radio [Radio], No. 7, 1957, pp. 21-23 (illus.).

Tracking of the signals from a Soviet artificial earth satellite.

408. Dubrovin, V., "Work With the Direction-Finding Attachment," ibid., No. 8, 1957, pp. 19-20.

Tracking of the signals from a Soviet artificial earth satellite.

409. Zamorskiy, A. D., "Visual Trackings of the Artificial Satellite," Priroda [Nature], No. 11, 1958, pp. 85-87.

410. "Instructions for Visual Tracking of Artificial Earth Satellites." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of AN USSR. Information Bulletin, No. 5, 1958, pp. 29-36.

411. Kazantsev, A., "Trackings of the Radio Signals from An Artificial Earth Satellite and Their Scientific Significance," Radio [Radio], No. 6, 1957, pp. 17-19.

412. Kan, K. N., "Telescopic Visual Searching From Scopes AT-1 to Small-Size Photographic Equipment." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of the Optical Tracking Stations for the Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 2, 1958, pp. 5-6.

413. Kotel'nikov, V. A., Dubrovin, V. M., Morozov, V. A., Rzhiga, O. N., and Shakhovskoy, A. M., "Use of the Doppler Effect in Determining the Parameters of the Orbits of Artificial Earth Satellites." In The Artificial Earth Satellites. Issue 1. Moscow: Publishing House of AN USSR, 1958, pp. 50-61 (illus.).

414. Kotel'nikov, V. A., Dubrovin, V. M., Morozov, V. A., Rzhiga, O. N., and Shakhovskoy, A. M., "Use of the Doppler Effect in Determining the Parameters of the Orbits of Artificial Earth Satellites," Radio-tekhnika i Elektronika [Radio Engineering and Electronics], Vol. III, No. 7, 1958, pp. 873-881.

415. Kukarkin, B. V., "Optical Methods of Tracking Artificial Earth Satellites," Priroda [Nature], No. 2, 1958, pp. 83-84.

416. Kuryshch, V. I., "Modernization of Astronomical Scopes AT-1 for the Determination of Horizontal Coordinates of Artificial Earth Satellites." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of the Optical Tracking Stations for the Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 10, 1958, pp. 9-12 (illus.).

417. Leykin, G. A., "On the Effect of Tidal Friction on the Movement of An Earth Satellite," Astronomicheskiy Zhurnal [Journal of Astronomy], Vol. 35, No. 2, 1958, pp. 297-300.

418. Leykin, G. A., "On the Use of Light Flashes for the Determination of the Position of Artificial Earth Satellites," Izvestiya [News] of AN USSR. Series on Geophysics, No. 12, 1958, pp. 1520-1521 [Biblio. of 4 titles].

419. Lipskiy, Yu. N., "Time Periods for the Photographing of Artificial Earth Satellites," Astronomicheskiy Zhurnal [Journal of Astronomy], Vol. 35, Issue 2, 1958, pp. 301-304 (illus.) [Biblio. of 4 titles].

420. Lozinskiy, A. M., "On Shutter Control of the Camera NAFA-3S from Contacts of Watches and Chronometer." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of the Optical Tracking Stations for the Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 2, 1958, pp. 9-10.

421. Lur'ye, M. A. and Tol'skaya V. A., "A Graphic Method of Computing the Conditions of Visibility of the American Satellite 1958e." Ibid., No. 1, 1958, pp. 3-7.

422. Masevich, A. G. and Lozinskiy, A. M., "Optical Tracking of Artificial Earth Satellites in the USSR." International Geophysical Year. Interdepartmental Committee for the Conduct of MGG Under the Presidium of AN USSR. Information Bulletin, No. 5, 1958, pp. 23-28.

423. Mikhaylov, A. A., "On the Tracking of An Artificial Satellite," Astronomicheskiy Zhurnal [Journal of Astronomy], Vol. 34, No. 3, 1957, p. 313.

424. Mikhaylov, A. A., "On the Tracking of An Artificial Satellite," Bureau of Astronomical Information of AN USSR. Astronomicheskiy Tsirkulyar [Astronomical Circular], No. 180, 1957, p. 1.

F  
1  
2

425. Tracking of the Signals of Artificial Earth Satellites. (Leaflet for youthful participants in the MGG) E. I. Morozov, comp. Moscow, 1958, 12 pp. (illus.) (Central Station for Young Technicians. International Geophysical Year, 1957-1958) [Biblio. of 26 titles].

426. "Trackings of Artificial Earth Satellites by Soviet Stations. Trackings of Artificial Earth Satellites by Foreign Stations." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of the Optical Tracking Stations for the Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 1, 1958, 5 pp. (Supplem.).

427. "Trackings of Artificial Earth Satellites by Soviet Stations. Trackings of Artificial Earth Satellites by Foreign Stations." Ibid., No. 2, 3 pp. (Supplem.).

428. Nabokov, M. E., "A Method of Rapid Computation of the Visibility of An Artificial Earth Satellite." Ibid., No. 1, 1958, pp. 7-8.

429. Novak, I., "A Thousand Trackings of the Soviet Artificial Earth Satellite," Nauka i Zhizn' [Science and Life], No. 10, 1958, pp. 8-9.

430. Oblakov, F. V., "Trackings of the Artificial Earth Satellite," Meteorologiya i Gidrologiya [Meteorology and Hydrology], No. 2, 1958, p. 42.

431. "Radio Enthusiasts Are Tracking According to This Schedule," Radio [Radio], No. 6, 1958, pp. 4-5.

On tracking the radio signals of the third Soviet artificial earth satellite.



432. Polozhentsev, D. D., "A Simple Method for the Rapid Determination of the Approximate Coordinates of the Artificial Earth Satellites from Photographs Taken With the NAFA dS/25 Camera." Bureau of Astronomical Information of AN USSR. Astronomicheskiiy Tsirkulyar [Astronomical Circular], No. 191, 1958, pp. 5-6.

433. "The Reception of Signals from A Satellite Has Been Predicted With An Accuracy of One Minute," Radio [Radio], No. 6, 1958, p. 57.

Experience of an American radio club in reception of the signals from the first Soviet artificial earth satellite.

434. Prodan, Yu., "Look! There Goes A Satellite!" Znaniye-Sila [Knowledge Is Power], No. 187, 1957, pp. 3-4.

On trackings of the movement of an artificial earth satellite.

435. "Radio Enthusiasts Are Helping the Scientists," Radio [Radio], No. 12, 1957, pp. 1-2.

On the participation of radio enthusiasts in satellite tracking.

436. "Results of Photographic Trackings of Artificial Earth Satellites." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of Optical Tracking Stations for Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 1, 1958, pp. 15-16 [Biblio.].

437. "Results of Photographic Trackings of Artificial Earth Satellites." Ibid., No. 2, 1958, pp. 10-15.

438. Rekach, A., "My Trackings," Radio [Radio], No. 12, 1957, pp. 13-14.

Radio enthusiasts receive signals from the artificial earth satellite.

439. Rzhiga, O. and Shakhovskoy, A., "Methods of Tracking," Radio [Radio], No. 8, 1957, pp. 17-19.

440. Rozhkovskiy, D. A., "On the System of Photographic Trackings of Satellites and Rockets With the 50-cm. Maksutov Meniscus Telescope." Bureau of Astronomical Information of AN USSR. Astronomicheskiiy Tsirkulyar [Astronomical Circular], No. 187, 1957, pp. 3-4.

441. Rozhkovskiy, D. A., Mityagin, V. S., and Kharitonov, A. V., "Experience in the Photographic Trackings of Artificial Earth Satellites With the Aid of A Maksutov Meniscus Telescope," Astronomicheskiy Zhurnal [Journal of Astronomy], Vol. 35, No. 3, 1958, pp. 479-485 [Biblio. of 5 titles].

442. Rozhkovskiy, D. A. and Mityagin, V. S., "Results of Photographic Tracking of Rocket-Carriers from the Mountain Observatory of the Astrophysical Institute of AN Kazakh SSR, 25 October 1957." Bureau of Astronomical Information of AN USSR. Astronomicheskiy Tsirkulyar [Astronomical Circular], No. 186, 1957, pp. 1-2.

443. Roslyakov, F., "Another Radio Fax!" Radio [Radio], No. 6, 1958, p. 5.

On tracking the signals of the third Soviet artificial earth satellite.

444. Sandakova, E. V. and Sergeyeva, A. N., "Photometry of the Rocket-Carriers of the Third Satellite." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of the Optical Tracking Stations for the Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 2, 1958, pp. 8-9.

445. Satanova, E. A. and Grigoryevskiy, V. M., "A Change in the Brightness of the Second Soviet Artificial Earth Satellite." Bureau of Astronomical Information of AN USSR. Astronomicheskiy Tsirkulyar [Astronomical Circular], No. 190, 1958, pp. 3-5.

446. Sorokin, V. A., "Experiences in the Tracking of Artificial Earth Satellites." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of the Optical Tracking Stations for the Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 2, 1958, pp. 6-7.

447. Tumanyan, B. E., "A Crude Sight for the AT-1 Visual Scope." Ibid., No. 2, 1958, pp. 3-5.

448. Khaykin, S., "On the Precise Determination of the Velocity of A Satellite," Radio [Radio], No. 12, 1957, pp. 5-7.

449. Tsesevich, V. P., "On the Change in Brightness of the Second Artificial Earth Satellite," Priroda [Nature], No. 4, 1958, pp. 78-79.

450. Shklovskiy, I. S., "Optical Methods of Tracking Artificial Earth Satellites." In The Artificial Earth Satellites. Issue 1. Moscow: Publishing House of AN USSR, 1958, pp. 44-49 (illus.) [Biblio. of 8 titles].

451. Shklovskiy, I. S. and Shcheglov, P. V., "Optical Observations of Artificial Earth Satellites," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 64, Issue 3, 1958, pp. 417-424 [Biblio. of 10 titles].

F  
1  
2  
452. Shmeling, V. V., "Equipment for the Training of Trackers and for the Study of Their Personal Mistakes." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of Optical Tracking Stations for Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 2, 1958, p. 2.

453. Shchegolyev, D. E., "Trackings of the Artificial Earth Satellites," Nauka i Zhizn' [Science and Life], No. 6, 1958, p. 16.

At the Pulkovo Observatory.

454. Shchegolyev, D. "Approximate Pre-Computation of Ephemerides of Artificial Earth Satellites." Bureau of Astronomical Information of AN USSR. Astronomicheskii Tsirkulyar [Astronomical Circular], No. 191, 1958, pp. 8-9.

455. Shchegolyev, D. E., "Comparison of Trackings of Artificial Earth Satellites With Theodolites ShT-1 and Scopes AT-1." Astronomical Council of AN USSR. International Geophysical Year. [Bulletin of Optical Tracking Stations for Artificial Earth Satellites] Byulleten' Stantsiy Opticheskogo Nablyudeniya ISZ, No. 1, 1958, pp. 13-14.

456. Yatsunskiy, I. M., "On the Influence of Geophysical Factors on the Movement of Satellites," Uspekhi Fizicheskikh Nauk [Progress in the Physical Science], Vol. 63, Issue 1a, 1957, pp. 59-72 [Biblio. of 9 titles].

#### (11) Problems of Methods and Technique

457. "Automatic Space Navigators," Tekhnika Molodezhi [Technique for Youth], No. 8, 1958, pp. 18-19.

On the scientific instruments installed in the third Soviet artificial earth satellite.

458. Bardin, I. P., "Technique of Soviet Investigations (On the Participation of Soviet Scientists in the Program of the International Geophysical Year0," Promyshlenno-Ekonomicheskaya Gazeta [Industrial-Economic Gazette], 10 March 1957.

459. Vavilov, V. S., Landsman, A. P. and Subashiyev, V. K., "Solar Batteries." In The Artificial Earth Satellites. Issue 2. Moscow: Publishing House of AN USSR, 1958, pp. 75-80 (illus.) [Biblio. of 13 titles].

460. Vakhnin, V., "The Artificial Earth Satellites. Information for Radio Enthusiast-Trackers," Radio [Radio], No. 6, 1957, pp. 14-17 (illus.).

F  
1  
2

461. Ginzburg, V. L. "Is A Journey in Time Possible?: Nauka i Zhizn' [Science and Life], No. 7, 1958, pp. 77-79.

462. Ginzburg, V. L., "Is A 'Flight in Time' Feasible?" Sovetskaya Aviatsiya [Soviet Aviation], 24 April 1958.

463. Druzhinin, L. and Sorin, Ya., "A Cosmic Re-transmitter," Znaniye-Sila [Knowledge Is Power], No. 6, 1958, pp. 5-6.

Discussion of the problem of "universal television."

464. Zablovskis, E. and Gravitis, E., "Circuit for Receiving Signals for Visual Tracking of Artificial Earth Satellites." Bureau of Astronomical Information of AN USSR. Astronomicheskiiy Tsirkulyar [Astronomical Circular], No. 190, 1958, pp. 11-12.

465. Ivanikov, V. I., "The Possibility of Photographing the Artificial Earth Satellites." Ibid., No. 187, 1957, pp. 5-7.

466. "The Study of A Satellite's Signals," Pravda [Truth], 7 August 1958.

467. Kaplan, S. A., How to See, Hear, and Photograph Artificial Earth Satellites. Moscow: State Publishing House of Physical-Mathematical Literature, 1958, 80 pp. (illus.).

468. Karatayev, G. I., "Attachment to Scope AT-1 for the Determination of the Coordinates of Artificial Earth Satellites." Bureau of Astronomical Information of AN USSR. Astronomicheskiiy Tsirkulyar [Astronomical Circular], No. 190, 1958, pp. 12-13.

469. Karpenko, A. G. and Lidov, M. L., "On the Temperature System of An Artificial Earth Satellite," Izvestiya [News] of AN USSR. Series on Geophysics, No. 4, 1957, pp. 527-533 [Biblio. of 6 titles].

470. Kiseleva, G., "Photographic Trackings of the Artificial Earth Satellite at Pulkovo on the AKD" Bureau of Astronomical Information of AN USSR. Astronomicheskiy Tsirkulyar [Astronomical Circular], No. 186, 1957, pp. 2-3.

471. Kramer, E., "Equipment for Photographing the Artificial Earth Satellite." Ibid., No. 190, 1958, pp. 14-15.

472. Lozinskiy, A. M., Podobyed, V. V., Smirnova, A. M., and Sulim, V. A., "A Camera for Photographing the Satellite." Ibid., No. 191, 1958, pp. 3-5.

473. Panaiotov, L. A., "Photography of Faint Satellites With A Camera With Portable Film." Ibid., No. 189, 1958, p. 4.

474. Papazyan, N. and Tumanyan, B., "Improvement of the Functioning of Signal Installation for Trackings of the Artificial Earth Satellite." Ibid., No. 190, 1958, pp. 15-16.

475. Parfenov, V. A., "In the Plasmatron Stream," Nauka i Zhizn' [Science and Life], No. 4, 1958, pp. 67-68.

Use of plasmatrons for study of the flight of rockets and artificial earth satellites.

476. "Problems of Telemetry in the Launching of A Satellite Into Its Orbit," Vestnik Informatsiy "Sovetskiy Radio" Information Journal of "Soviet Radio," No. 18, 1956, pp. 5-6.

476a. "Problems of Control and Feeding of Earth Satellites Equipped With Instruments," ibid., No. 18, 1956, pp. 10-13.

477. Prozorovskiy, Yu., "A Satellite Is In the Ether," Radio [Radio], No. 12, 1957, p. 12.

478. The Path to the Cosmos. Moscow: Pravda [Truth], 1958, 329 pp.

Materials from the newspaper Pravda on the three Soviet artificial earth satellites.

479. Skotnikov, V., "How A Rocket Goes into Orbit," Komsomol'skaya Pravda [Komsomol Truth], 16 May 1958.

480. The Soviet Artificial Earth Satellite. (Published in the Newspaper "Pravda" 5-12 October 1957). Moscow: Pravda, 1957, 80 pp.

480a. "The Soviet Artificial Earth Satellite." International Geophysical Year. Interdepartmental Committee for the Conduct of the MGG Under the Presidium of AN USSR. Information Bulletin, No. 4, 1958, pp. 24-30.

## (12) The Relativity Theory

481. Ginzburg, V. L., "Artificial Satellites and the Theory of Relativity," Nauka i Zhizn' [Science and Life], No. 2, 1958, pp. 7-12, 16.

481a. Ginzburg, V. L., "The Use of Artificial Earth Satellites for Proving the General Theory of Relativity," Uspekhi Fizicheskikh Nauk [Progress in the Physical Sciences], Vol. 63, Issue 1a, 1957, pp. 119-122.

481b. Ginzburg, V. L., "Experimental Testing of the General Theory of Relativity and Artificial Earth Satellites," Priroda [Nature], No. 9, 1956, pp. 30-39.

See also No. 57.

## 13. Seismology

482. Bulletin of the Network of Seismic Stations of the USSR. Moscow, 1958-1959, 4 volumes (AN USSR. Council for Seismology Under the Presidium of AN USSR).

No. 1. January-March, 1957, 254 pp.

No. 2. April-June, 1957, 198 pp.

No. 3. July-September, 1957, 166 pp.

No. 4. October-December 1957, 125 pp.

482a. Bulletin of the "Apatity" Seismic Station. Kirovsk, 1957-1958, 4 volumes (AN USSR. Kola Branch im. S. M. Kirov).

No. 1. July-December, 1956, 38 pp. (illus.).

No. 2. January-June, 1957, 62 pp. (illus.).

No. 3. July-December, 1957, 62 pp. (illus.).

No. 4. January-June, 1958, 66 pp. (illus.).

483. Veshnyakov, N. V., "On Some Errors in the Determination of Azimuth of Microseisms by the Three-Station Method," Izvestiya [News] of AN USSR. Series on Geophysics, No. 8, 1958, pp. 1020-1025 (illus., tables).

484. Gal'perin, Ye. I., "A Study of the Structure of the Earth's Core in the Region of Transition from the Asiatic Continent to the Pacific Ocean." International Geophysical Year. Interdepartmental Committee for the Conduct of MGG Under the Presidium of AN USSR. Information Bulletin, No. 5, 1958, pp. 68-73.

485. Gal'perin, E. I., Goryachev, A. V., Zverev, S. M., "Investigation of the Earth's Core in the Region of Transition from the Asiatic Continent to the Pacific Ocean. Raboty [Works] of the Joint Pacific Ocean Geological-Geophysical Expedition of AN USSR in 1957. Section XII of the MGG Program (Seismology). Moscow: Publishing House of AN USSR, 1958, No. 1, 28 pp. (illus., 5 maps) (International Committee for the Conduct of the MGG under the Presidium of AN USSR).

486. Monakhov, F. I., "Microseismic Observations." Main Administration of the Hydrometeorological Service. Committee for the Conduct of the MGG. Information Collection, No. 5, 1958, pp. 26-33 (illus.).

487. Panasenko, G. D., "Investigations Under the Program of the International Geophysical Year at the "Apatity" Seismic Station, Byulleten' Seysmicheskoy Stantsii "Apatity" [Bulletin of the "Apatity" Seismic Station], Kirovsk, No. 2, 1957, pp. 59-62 (illus.).

487a. Panasenko, G. D., "A Four-Component Method for the Composing of Seismographs," ibid., No. 4, 1958, pp. 61-66 (illus.).

488. "The Approach of A Hurricane," Vokrug Sveta [Around the World], No. 7, 1958, p. 32.

#### On microseismic investigations.

489. Savarenskiy, Ye. F., Lysenko, L. N., Kompanets, M. V., "On Microseisms of Lake Issyk-Kul' According to Observations of the Seismic Station at Rybach'ye," Izvestiya [News] of AN USSR. Series on Geophysics, No. 8, 1958, pp. 1015-1019 (illus.).

490. "Seismic Investigations Under the International Geophysical Year." In Questions of Soviet Science. The Study of Earthquakes and Seismic Zones. Moscow: Publishing House of AN USSR, 1957, p. 10.

491. Tyuremov, V. A., "Microseisms on the 'World Days' and 'World Intervals' of the International Geophysical Year (January-June 1958), Byulleten' Seysmicheskoy Stantsii "Apatity," [Bulletin of the "Apatity" Seismic Station], Kirovsk, No. 4, 1958, pp. 55-58.

491a. Tyuremov, V. A., "On Short Period Fluctuations in the Background of Primary Microseisms," ibid., No. 3, 1958, pp. 61-62 (illus.).

See also Nos. 46, 126, 164, 589.

#### 14. Gravimetry

492. Eygenson, M. S., "On Solar Control of the Rotation of the Earth." International Geophysical Year. Organizational Committee for the Conduct of MGG Under the Presidium of AN UkrSSR. Information Bulletin, No. 1, 1958, pp. 16-37 (illus.).

493. Yakovkin, A. A., "Irregularities in the Earth's Rotation and Means for its Investigation." Ibid., No. 1, 1958, pp. 7-15.



### III. COMBINED EXPEDITIONS

#### 1. The Antarctic

494. Aver'yanov, V. G., "On the Temperature System of the Snow Layer in the Interior Regions of the Antarctic," Informatsionniy Byulleten Sovetskoy Antarkticheskey Ekspeditsii [Information Bulletin of the Soviet Antarctic Expedition], No. 1, 1958, pp. 47-51 (tables) (Arctic and Antarctic Scientific Research Institute of Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet) [Biblio. of 2 titles].

495. Aleynov, A. Z., "A History of the Cartography of the Antarctic and Its Contemporary Cartographic Study." In The Antarctic. Moscow: Geografiz [Publishing House of Geographical Literature], 1958, pp. 95-157.

496. The Antarctic. Part 1. G. M. Tauber. Main Features of the Climate and Weather. Leningrad: Gidrometeodizdat [Hydrometeorology Publishing House], 1956, 148 pp. (illus., 2 maps) (Main Administration of the Hydrometeorological Service Under the Council of Ministers of USSR. State Oceanographic Institute) [Biblio. of 148 titles].

497. The Antarctic Expeditions of the U.S.A. Collection of Translations. Moscow, 1958 (Moscow Operational Group for the Combined Antarctic Expedition. Foreign Literature on the Antarctic).

Part 1. Operation "Deepfreeze 1" 75 pp. (illus., maps).

Part 2. Operation "Deepfreeze 2" 84 pp. (illus., tables and maps).

Part 3. Start of Operation "Deepfreeze 3" 59 pp.

498. Afanas'yev, A., "In the Heart of the Icy Continent. Investigations of Soviet Scientists," Pravda [Truth], 17 June 1958.

499. Aerological and Meteorological Investigations. Diesel-Electric Vessel "Ob'" 1955-1956. Leningrad: Hydrometeorology Publishing House, 1958, 183 pp. (International Geophysical Year, Trudy [Transactions] of the Complex Antarctic Expedition of AN USSR).

500. Beklemishev, K. V., "The Bio-Geographical Nature of Some Forms of Antarctic Zoo-Plankton, Doklady [Reports] of AN USSR, Vol. 120, No. 3, 1958, pp. 507-509.

501. Bugayev, V. A., "Determination of the Altitude of Interior Antarctic Stations," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, pp. 9-11 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

502. Buynitskiy, V. Kh. "Sea Waters in Antarctic Ices." In The Antarctic. Moscow: Publishing House of Geographical Literature, 1958, pp. 320-406.

503. Bukin, G. V., "Ionospheric Observations at the 'East' Station." International Geophysical Year. Interdepartmental Committee for the Conduct of MGG Under the Presidium of AN USSR. Information Bulletin, No. 5, 1958, pp. 45-46 (illus.).

504. Burkhanov, V., "On the Sixth Continent," Slavyanye [The Slave], No. 8, 1958, pp. 17-21.

505. Voronov, P. S., "On the Geomorphology of Eastern Antarctica," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 35-39 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

506. Voronov, P. S., "New Data on the Geomorphology of Eastern Antarctica." Nauchnye Doklady Vysshey Shkoly. Geologo-Geograficheskoye Nauki [Research Papers of Higher Schools. Geological and Geographical Sciences], No. 3, 1958, pp. 51-54.

507. Voronov, P. S., "Current Problems in the Study of the Structure of Antarctica," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, pp. 13-16 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

508. Voronov, P. S., "The Structural Pattern of Antarctica," ibid., No. 1, 1958, pp. 21-25 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet). [Biblio. of 16 titles].

509. Vtyurin, B. I., "Study of the Shore Ice and Icebergs in the Antarctic (International Geophysical Year)," Priroda [Nature], No. 4, 1958, pp. 59-63 (illus.).

510. "Selected Bibliography of Foreign Books and Journal Articles on Scientific Research in the Antarctic (1956-1958)," Informatsionniy Byulleten' o Rabotakh Provodimykh v Antarktike Inostrannymi Gosudarstvami [Information Bulletin On Operations Being Conducted in the Antarctic by Foreign States], Issue 5, Moscow, 1958, pp. 31-37 (AN USSR. All-Union Institute of Scientific and Technical Information).

511. Vyalov, O. S. and Sobolyev, V. S., "Mt. Gauss in the Antarctic," Izvestiya Vysshey Uchebnykh Zavedeniy [Bulletin of Institutions of Higher Learning], No. 2, 1958, pp. 3-17 (ministry of Higher Education of the USSR. Geology and Surveying).

512. Vyalov, O. S., and Tkachuk, L. G., "Calciferous Crusts from the Antarctic," Priroda [Nature], No. 6, 1958, pp. 113-114.

Short report on the results of petrographic and chemical analysis of calciferous crusts from the vicinity of the Peace Observatory.

513. Vyalov, S., Report on the Sixth Continent," Znaniye-Sila [Knowledge Is Power], No. 2, 1958, pp. 1-3.

From notes on participants in the Soviet antarctic expedition.

514 Vyalov, S., "Where It Is Coldest of All," Ibid., No. 9, 1958, pp. 20-22.

515. Vyalov, S. S., "The Third Shift of Investigators of the Antarctic," Vestnik [Herald] of AN USSR, No. 2, 1958, pp. 33-38.

516. Galeyev, V. Kh. "Astronomical Computations on the Continent of Antarctica During the International Geophysical Year," Geodeziya i Kartografiya [Geodesy and Cartography], No. 8, 1958, pp. 22-31 (illus. and tables).

517. Hydrological, Hydrochemical, Geological Investigations. Diesel-Electric Vessel "Ob", 1955-1956. Leningrad: Hydrometeorology Publishing House, 1958, 218 pp. (tables, 1 map) (International Geophysical Year. Trudy [Transactions] of the Complex Antarctic Expedition of AN USSR).

518. Girs, A. A., "On the Interrelationships Between Atmospheric Circulation in the Arctic and Antarctic, [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, pp. 21-24 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet) [Biblio. of 17 titles].

519. Glasovskaya, M. A., "Weathering and Primary Soil Formation in the Antarctic." [Research Papers of Higher Schools. Geological and Geographical Sciences] Nauchnye Doklady Vysshey Shkoly. Geologo-Geograficheskiye Nauki, No. 1, 1958, pp. 63-76 (illus.).

520. Glaciology of the Antarctic. Part 1. Moscow, 1958, 61 pp. (illus.) (Moscow Operational Group for the Complex Antarctic Expedition. Foreign Literature on the Antarctic, Issue 9).

521. "The Antarctic Speaks," Izvestiya [News], 2, 3 July 1958.

Participants in the scientific expeditions write on the work of the Antarctic stations: E. Tolstikov; V. Sidorov; V. Babarykin; K. Risher; G. de Zherlash; Ya. T'ennessen; Kreri; E. Adams; L. Martin; M. Fokin; Barnes; Flatten; Ruyon; G. Silin; J. MacDowell; Morrison; Tressler; Selmon; F. Beynis.

522. Gorin, P., "Another Pole Won!" Vokrug Sveta [Around the World], No. 3, 1958, p. 22 (map).

On the setting up of the "East" scientific station in the Antarctic. On the investigations of Soviet scientists in the area of the South Magnetic Pole.

523. Gusev, A., "The Icy Continent," Novyy Mir [New World], No. 1, 1958, pp. 173-195.

Notes of members of the Soviet Antarctic expedition.

524. Gusev, A. M. and Rusin, N. P., "Meteorological Features of the Interior Region of Eastern Antarctica From Observations at the "Pioneer" Station, Doklady [Reports] of AN USSR, Vol. 177, No. 1, 1957, pp. 68-71.

525. Gusev, A. M. "Theoretical Pattern of Air Circulation Over the Antarctic," ibid., Vol. 120, No. 2, 1958, pp. 285-288 (2 maps).

526. "Two Years of Research in the Antarctic," Priroda [Nature], No. 2, 1958, pp. 62-63.

Investigations by the Soviet Combined Antarctic Expedition at the "Peace" Camp.

527. Dolgin, I. M., "The Reception of Expedition Materials," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, p. 49 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

528. Dolgushin, L. D., "Geographical Observations in the Antarctic. Report 1," Izvestiya [News] of AN USSR. Series on Geography., No. 1, 1958, pp. 28-47 (illus.).

529. Dolgushin, L. D., "Glaciological Observations in the Antarctic," ibid., No. 6, 1958, pp. 16-25 (illus.).

530. Dolgushin, L. D., Vtyurin, B. I., Model', Yu. M., and Kapitsa, A. P., "Preliminary Results of the Glaciological Observations of the First Soviet Continental Expedition in the Antarctic," Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva [News of the All-Union Geographical Society], No. 2, 1958, pp. 118-133 (illus., 1 map).

531. Zakolupin, N. and Zarapin, D., "The Fourth Antarctic. Preparations for A New Expedition to the Icy Continent," Pravda [Truth], 14 September 1958.

532. "The 'Closing Down' of the Sixth Continent," Vokrug Sveta [Around the World], No. 6, 1958, pp. 2-3.

533. Information Bulletin on the Operations Being Conducted in the Antarctic by Foreign States. Moscow, 1958 (AN USSR. All-Union Institute of Scientific and Technical Information of Gos tekhnika [State Committee of the Council of Ministers of the USSR for New Technological Methods] and AN USSR).

Issue 3. October, 1956 - October, 1957, 53 pp. (illus., 1 map).

Issue 4. November, 1957 - February, 1958, 60 pp. (illus., 4 maps).

Issue 5. February-June, 1958, 37 pp. (illus.).

534. [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii. Leningrad: Morskoy Transport [Ocean Transportation], 1958 (Arctic and Antarctic Scientific Research Expedition of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

No. 1. 96 pp. (illus.).

No. 2. 64 pp. (illus., 1 map).

535. Kapitsa, A., "In the Depth of the Wilderness," Yunost' [Youth], No. 12, 1958, pp. 98-110.

## Notes of a member of the first Soviet Antarctic expedition.

536. Kapitsa, A. P., "Dynamics of the Marginal Zone of the Ice Cover of Antarctica in the Area of Operations of the Soviet Antarctic Expedition, 1955-1957," Vestnik Moskovskogo Universiteta. Seriya Biologii, Pochvovedeniya, Geologiya i Geografiya [Herald of Moscow University. Series on Biology, Soil Science, Geology, and Geography], No. 1, 1958, pp. 209-220 (maps).

537. Kapitsa, A. P., "Dynamics of the Ice Cover of Antarctica in the Area of Operations of the Combined Antarctic Expedition of the Academy of Sciences of the USSR." (Report edited by author, read 22 January 1958), Byulleten' Moskovskogo Obshchestva Ispytanii Prirody [Bulletin of Moscow Society for the Study of Nature], Section on Geology, Vol. 33, Issue 2, 1958, pp. 167-168.

F  
1  
2

538. Kapitsa, A. P., "On the Trend of Glaciation of the Continent of Antarctica," Nauchnye Doklady Vysshey Shkoly. Geologo-Geograficheskoye Nauki [Research Papers of Higher Schools. Geological and Geographical Sciences], No. 1, 1958, pp. 48-52.

539. Kapitsa, A. P., "On the Dependence of the Form of the Ice Cupola of Eastern Antarctica on the Relief of the Channel Beneath the Ice and the Character of Spreading of the Ice," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 41-45 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

540. Kapitsa, A. P., "Determination of the Speed of Movement of Terminal Glaciers From the Crimping of the Ocean Floe," ibid., No. 1, 1958, pp. 53-55 (illus.) (Arctic and Antarctic Scientific Research Expedition of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

541. Kapitsa, A. P., "Ice-Boring Tests in the Antarctic," Byulleten' Nauchni-tekhnicheskoy Informatsii [Bulletin of Scientific and Technical Information]. USSR Ministry of Geology and the Preservation of Natural Resources, No. 4(16), 1958, pp. 75-78 (illus.).

542. Cartwright, D. Gordon, "With the Russians in the Antarctic. The Russians Are Remarkable People," Vodnyy Transport [Water Transportation], 22 November 1958.

Articles of an American meteorologist who participated in the second Soviet continental Antarctic expedition. From the Saturday Evening Post. Printed with abridgments.

543. Kirillov, I. and Rybnikov, A., "A Phantom Island," Vokrug Sveta [Around the World], No. 9, 1958, pp. 20-21 (illus.).

On the investigation by Soviet scientists of the Buve Island in the Antarctic.

F 544. Klimov, L. D. and Solov'yev, D. S., "Preliminary Report of  
1 Geological Observations in Eastern Antarctica," [Information Bulletin  
2 of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 27-30 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

545. Korotkevich, Ye. S., "The Distribution of Icebergs in the Area of the Davis Sea," ibid., No. 1, 1958, pp. 65-71 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

546. Korotkevich, Ye. S., "Physico-Geographical Characteristics of the Area of Operations of the Soviet Antarctic Expedition, 1955-1957," Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva [News of the All-Union Geographical Society], Vol. 90, Issue 3, 1958, pp. 220-243.

547. Kort, V. G., "The Antarctic Symposium in Wellington [N.Z.] February, 1958," Priroda [Nature], No. 7, 1958, pp. 63-64.

548. Kort, V. G., "The Third Antarctic Marine Expedition," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, pp. 5-7 (1 map) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

549. Krichak, O. G., "Some Characteristics of Atmospheric Circulation Over the Antarctic," Meteorologiya i Gidrologiya [Meteorology and Hydrology], No. 4, 1958, pp. 3-4.

550. Krichak, O. G., "Preliminary Results of Aerometeorological Work in 1957 and 1958," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 57-59 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

551. Leonov, N. G., "Some Characteristics of Variations of Winds with Altitude over the Eastern Seacoast of the Antarctic," Meteorologiya i Gidrologiya [Meteorology and Hydrology], No. 6, 1958, pp. 8-13 (tables).

552. Lepikhin, P. A., "Deep in the Antarctic. From the Notes of a Polar Explorer," Priroda [Nature], No. 12, 1958, pp. 79-86.

On the work of the East-1 Antarctic station.

553. Lisitsyn, A. P. and Zhivago, A. V., "Current Methods of Study of Geomorphology and Sediments on the Ocean Floors of the Antarctic," Izvestiya [News] of AN USSR, No. 6, 1958, pp. 88-97.

F  
1  
2

554. Maksimov, I. V., "The Second Antarctic Marine Expedition of the USSR Academy of Sciences." In Problems of the Arctic. Collection of Articles. Leningrad Morskoy Transport [Ocean Transportation], Issue 5, 1958, pp. 133-137 (tables).

555. Maksimov, I. V., "On the Study of the Western Antarctic Seacoast Current," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii No. 2, 1958, pp. 31-34 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

556. Maksimov, I. V., "Oceanographic Research by Soviet Antarctic Expeditions," ibid., No. 1, 1958, pp. 11-16 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

557. Mansurov, S. M., "On the Causes of Localization of Geomagnetic Variations in the Area of the Peace Station," ibid., No. 2, 1958, pp. 37-41 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

558. Markov, K. K., "Two Special Questions in the Geography of the Eastern Antarctic: 1. An Active Volcano on the Emery Glacier; 2. White Island," Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva [News of the All-Union Geographical Society], Vol. 90, Issue 4, 1958, pp. 305-314 (illus.).

559. Markov, K. K., "Foreign Expeditions to the Antarctic in 1957 and 1958," Priroda [Nature], No. 2, 1958, pp. 59-61 (map).



560. Markov, K. K., "Modern Antarctica as the Ancient Glaciated Area of the Northern Hemisphere," Nauchnye Doklady Vysshey Shkoly. Geologo-Geograficheskoye Nauki [Research Papers of Higher Schools]. Geological and Geographical Sciences, No. 1, 1958, pp. 53-62.

561. Mrkos, A., "Investigations of Night Glow," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionnyy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, pp. 43-44 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

562. Land and Road Transportation in the Antarctic. Moscow: Morskoy Transport [Ocean Transportation], 1958 (Moscow Operational Group of the Combined Antarctic Expedition. Foreign Literature on the Antarctic. Issues 5, 8).

Part 1. 80 pp. (illus.).

Part 2. 60 pp. (illus.).

563. "Scientific Investigations of Foreign Antarctic Expeditions," Informatsionnyy Byulleten' o Rabotakh Provodimykh v Antarktike Inostrannymi Gosudarstvami [Information Bulletin on the Operations Being Carried Out in the Antarctic by Foreign States], Moscow, 1958, Issue 5, pp. 3-30 (illus.) (AN USSR. All-Union Institute of Scientific and Technical Information).

564. Nudel'man, A. V., "In the Relatively Inaccessible Area of the South Pole." International Geophysical Year. Interdepartmental Committee for the Conduct of MGY Under the Presidium of the AN USSR. Information Bulletin, No. 5, 1958, pp. 86-90 (illus.).

On the third Soviet continental Antarctic expedition.

565. Nudel'man, A., "A Calendar of the Antarctic Expedition," Morskoy Flot [Ocean Fleet], No. 4, 1958, pp. 22-23 (maps).

On the setting up of the Komsomol and East Antarctic stations for scientific research.

566. Nudel'man, A., "A Calendar of the Antarctic Expedition. The First Inland Pioneer Station," ibid., No. 5, 1958, p. 24.

567. Oceanology of the Antarctic. Part 1. Moscow, 1958 (Moscow Operational Group of the Combined Antarctic Expedition. Foreign Literature on the Antarctic. Issue 10).

568. "The Daring Subjugators of the Antarctic Have Returned to the Fatherland," Vodnyy Transport [Water Transportation], 26 April 1958.

On the results of the Second Continental Antarctic Expedition. Articles: S. Mansurov, "Research of Geophysicists,"; N. Medvedyev, "In the Land of Ice and Snowstorms,"; S. Lopatin, "Episodes in Our Life,"; P. Shumskiy, "Study of the Ice Cover"; O. Krichak, "The Atmosphere Reveals Its Secrets."

569. "The Discoveries of Soviet Scientists in the Antarctic," Pravda [Truth], 25 June 1958.

F  
1  
2

570. Panov, D. G., "The Geological Structure of Antarctica." In Antarctica, Moscow: Geografiz [Publishing House of Geographical Literature], 1958, pp. 158-236.

571. Pelevin, V., "The Setting Up of the "Komsomol" Station," Morskoy Flot [Ocean Fleet], No. 7, 1958, pp. 25-26.

On the operations of the Second Soviet Combined Antarctic Expedition.

572. Pogosyan, Kh. P., "Circulatory Features of the Atmosphere in the Antarctic," Meteorologiya i Gidrologiya [Meteorology and Hydrology], No. 8, 1958, pp. 3-10 (illus.).

573. Ravich, M. G., "The Absolute Growth of the Pre-Cambrian Rocks of the Central Sector of Eastern Antarctica," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 31-33 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

574. Ravich, M., "Investigations of Mountain Ranges," Vodnyy Transport [Water Transportation], 25 November 1958.

575. Ravich, M. G., "Some Results of Geological Investigations by the Soviet Antarctic Expedition," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 2, 1958, pp. 13-16 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

576. Ravich, M. G., "Journey to the Antarctic," Neva [The Neva], No. 9, 1958, pp. 185-196.

Notes of a member of the Soviet Antarctic expedition.

577. Rusin, N. P., "Meteorological Processes in the Layer of Surface Air in the Antarctic." In Current Problems of the Meteorology of the Surface Layer of Air. Collection of articles. Leningrad: Gidrometeoizdat [Hydrometeorology Publishing House], 1958, pp. 5-25 (illus.).

578. Rusin, N. P., "The Meteorological System of Antarctic Oases and Their Effect on the Surrounding Ice Cover," Meteorologiya i Hidrologiya [Meteorology and Hydrology], No. 3, 1958, pp. 3-12.

579. Rusin, N. P., "Radiational Balance of the Snow Cover in the Antarctic," Information Bulletin of the Soviet Antarctic Expedition [Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii], No. 2, 1958, pp. 25-30 (tables) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet) [Biblio. of 4 titles].

580. Sen'ko, P. K., "Geophysical Research in the Antarctic," Priroda [Nature], No. 7, 1958, pp. 59-62 (illus.).

581. Sen'ko, P. K., "On the Unusual Localization of Magnetic Variations in the Area of the Peace Station," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 81-82 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

582. Silkin, B., "The Secret of the Antarctic," Sovetskaya Kul'tura [Soviet Culture], 17 May 1958.

583. Slevich, S., "The Ships Go to the Antarctic. Notes of an Expedition Member," Zvezda [The Star], No. 6, 1958, pp. 149-158.

584. Somov, M. M., "The Combined Antarctic Expedition of the USSR Academy of Sciences, 1955-1957." International Geophysical Year. Interdepartmental Committee for the Conduct of IGY Under the Presidium of AN USSR. Information Bulletin, No. 4, 1958, pp. 89-97 (illus.).

585. Somov, M. M. and Kopteva, A. V., "Tides in the Area of the Peace Station," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 73-78 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

586. Somov, M. M., "Soviet Investigations on the Antarctic Continent," ibid., No. 1, 1958, pp. 7-10 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

587. Safety Measures and Mutual Aid in the Antarctic. Collection of articles. Translated from the English. Moscow, 1958, Part 1, 74 pp. (illus.) (Moscow Operational Group of the Combined Antarctic Expedition. Foreign Literature on the Antarctic. Issue 4).

588. Syzyumov, Ye. M., To the Sixth Continent. Moscow: Publishing House of Geographical Literature, 1958, 350 pp. (illus., 1 map).

F  
1  
2

Travel notes of a member of the Soviet Antarctic expedition.

589. Sytinskiy, A. D., "Seismic Observations in the Observatory of the Peace Station," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 79-80 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

590. Treshnikov, A. F., "International Ties of the Second Continental Antarctic Expedition," ibid., No. 1, 1958, pp. 83-87 (illus.) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

591. Treshnikov, A., "Some Results of Soviet Scientific Research in the Antarctic," Morskoy Flot [Ocean Fleet], No. 12, 1958, pp. 22-24.

From materials of the second Soviet continental Antarctic expedition.

592. Treshnikov, A. F., "Some Features of the Ice System of the Davis Sea," [Information Bulletin of the Soviet Antarctic Expedition] Informatsionniy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii, No. 1, 1958, pp. 61-63 (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

593. Treshnikov, A. F., "New Data on the Altitudes of Eastern Antarctica," ibid., No. 1, 1958, pp. 17-20 (tables) (Arctic and Antarctic Scientific Research Institute of the Main Administration of the Northern Sea Route of the Ministry of the Ocean Fleet).

594. Treshnikov, A. F., "The Soviet Expedition to the Antarctic (1956-1957)." In Problems of the Arctic. Collection of articles. Leningrad: Morskoy Transport [Ocean Transportation], Issue 3, 1958, pp. 121-122.

595. Treshnikov, A. F., "Soviet Investigations on the Antarctic Continent," Kul'tura i Zhizn' [Culture and Life] No. 10, 1958, pp. 34-37.

596. Treshnikov, A. F., "Four Hundred and Twenty-five Days on the Icy Continent. Interview with the Director of the Second Antarctic Continental Expedition, A. F., Treshnikov," Sovetskiy Flot [Soviet Fleet], 5 June 1958.

597. Shalimov, A. I., "History of Geological Study of the Antarctic," Trudy Nauchno-Issledovannogo Instituta Geologii Arktiki [Transactions of the Scientific Research Institute of Arctic Geology], Vol. 95, 1957, pp. 5-79 (maps).

598. Shlyakhov, V. I., "On Minimum Temperatures in the Antarctic," Meteorologiya i Gidrologii [Meteorology and Hydrology], No. 4, 1958, pp. 5-7.

599. Shteynberg, V. V., "The Lowest Temperature on Earth," Priroda [Nature], No. 8, 1958, p. 82

From the investigations of the Soviet Antarctic inland stations in April-May 1958.

600. Shcherbakov, D., "In the Mysterious Antarctic," Literaturnaya Gazeta [Literary Gazette], 12 December 1958.

601. Shcherbakov, D. I., "Some Results of the Work of the Soviet Combined Antarctic Expedition," Vestnik [Herald] of AN USSR, No. 8, 1958, pp. 47-56.

Report at a General Assembly of the AN USSR on 20 June 1958.

602. Shcherbakov, D., "Secrets of the Icy Continent," Komsomol'skaya Pravda [Komsomol Truth], 10 July 1958.

603. Shcherbakov, D., "The Attack on the Antarctic Is To Be Continued," Ogonek [The Light], No. 45, 1958, p. 6.  
See also Nos. 29, 44, 608.

## 2. The Arctic

604. Balakshin, L. L., "The High-Latitude Oceanographic Expedition on the Diesel-Electric Vessel Ob'." In Problems of the Arctic. Collection of articles. Leningrad: Morskoy Transport [Ocean Transportation], Issue 3, 1958, pp. 124-127.

605. Blagodarov, V. Ye., "On Arctic Ice. From the Notes of a Winterer," Sovetskaya Otchizna [Soviet Fatherland], No. 4, 1958, pp. 129-161.

606. "On Arctic Ice," Nauka i Zhizn' [Science and Life], No. 11, 1958, p. 61

F  
1  
2

Short note on geophysical stations.

607. Dralkin, A., "Drifting Station 'North Pole 4' in the Polar Area of the Central Polar Basin," Morskoy Flot [Ocean Fleet], No. 6, 1958, pp. 21-22.

608. Dralkin, A., "The International Geophysical Year in the Arctic and the Antarctic," Vodnyy Transport [Water Transportation], 27 February 1958.

609. Ivanov, M. I., "New Data on the Origin of Floating Ice Islands," Priroda [Nature], No. 7, 1958, pp. 94-97 (illus.).

610. Kanaki, V., "They Are Working at the 'Friendship' Station," Vokrug Sveta [Around the World], No. 11, 1958, pp. 29-32 (illus.).

On the setting up of a polar geophysical station on Kheys Island.

611. Kanaki, V. G., "The 1957 Expedition of the Arctic Institute." In Problems of the Arctic. Collection of articles. Leningrad: Morskoy Transport [Ocean Transportation], Issue 4, 1958, pp. 103-104.

612. Kaplin, P. A., "Retreat of the Glaciers from Novaya Zemlya," Priroda [Nature], No. 3, 1958, pp. 88-90 (illus.).

On glaciological investigations.

613. Kolokolov, B., "Our Arctic," Izvestiya [News], 1, 5, 7, 11 June 1958.

614. Nikitin, M. M., "The 1957 High-Latitude Aerial Expedition,"  
In Problems of the Arctic. Collection of articles. Leningrad: Morskoy  
Transport [Ocean Transportation], Issue 4, 1958, pp. 104-108 (tables).

615. Sredinskiy, S. N., "Are Silvery Clouds To Be Observed in  
the Arctic?" Priroda [Nature], No. 3, 1958, pp. 74-75.

616. Frolov, V. V. and Pasetskiy, V. M., "Research Center for  
the Northern Arctic Ocean," ibid., No. 8, 1958, pp. 56-62 (illus.).

On the activities of the Arctic Institute.

See also Nos. 29, 518.

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